

THE LONDON and COUNTRY BREWER.

CONTAINING

Several Errors committed in making MALTS.	DRINK, and a WEST- INDIA LIQUOR.
Of Brewing WHEAT- MALT.	Brewing MALT-DRINKS without Boiling Water, Wort, or Hops.
Of the Good and Bad PROPERTIES of the Hop.	Sir T— S—'s Method of Brewing a Pipe of Pale OCTOBER.
Of the Nature, Preventi- on, and Cure of Foxed MALT-LIQUORS, and UTENSILS.	The Fraudulent Practice by short-measured CASKS exposed.
Several Ways of Recover- ing stale or pricked MALT-LIQUORS.	A LETTER from one BREWER to another, concerning Conceal- ments of MALT- DRINKS.
FERMENTATION.	
Brewing DORCHESTER BEER, SHROPSHIRE	

To which is added,

A DISSERTATION on the BREWERY, wherein is shewn
the ill Consequence of CLAY-WELLS, and CLAY-BUNGS;
how to brew a clear, sound DRINK with nasty, foul WA-
TER; the prejudicial Nature of FÆCES; with several other
Serviceable Matters.

*By a Person formerly concerned in a publick Brewbouse,
in London, but for Twenty Years past has resided in
the Country.*

PART II.

LONDON:

Printed for the AUTHOR, and sold by Mess. Fox, in Westmin-
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THE
LONDON AND COUNTY
BREAD & BUTTER



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THE PREFACE

AS it is certain that Malt Liquors above any other Sorts pass through the most Digestions, and are therefore more liable to Mismanagements, which daily Experience confirms; and as the Use of them is general, and thereon so much depends the Health of the Body, I think it calls for our greatest Study and Application to detect the common Errors, and to lay down such plain, easy, and efficacious Rules and Directions, as may tend to bring about such an Amendment in the Practice of Brewing, and Management of Malt-Liquors, that we may enjoy wholesomer and pleasanter Drink of this Kind, than heretofore, by establishing it upon the Basis of a more just and natural Rationale.

THEREFORE, this being premised, I have in my former Work endeavoured to lend my helping Hand, to effect this so much desired and wished for End, as the Quantity of my Sheets would permit: But this being a Science more extensive, and capable of Improvement than the Generality of Mankind are apprehensive of, (who too much content themselves in following the Errors of their Predecessors) I have here in this second Part enlarged on some of my former Heads, as I judged most necessary; and likewise added and discussed such new Matter, as might conduce most to the Improvement of this Art, and the undeceiving of such, who, through Ignorance or Interest, suffer themselves to persist in their Errors.

WHEN a Person is about to brew Malt-Drink, it would not be amiss to put the following, or some suchlike Natural, Quære to himself, *What am I going to do, or What is my Intencion in this Procedure?* 'Tis certainly to procure a fine, pure, and light Vinous Liquor, as free from any terrene, clammy, or other Heterogeneous Particles as may be.

BUT how the present usual Management by long Mashings, long Boiling of the Hop, either under or over Coktion of the Wort, violent repeated Bearings in of the Yeast, Mixing injurious Ingredients in the Drink, the prejudicial (tho' common) Use of Clay, &c. I say, how these do answer the Purpose aforesaid, in affording a pure, light, wholesome, and Vinous Drink, I shall leave to the Determination of all such as will but make use of their Reason.

AND were People but to consider the true Nature of Yeast or Barm (that notwithstanding it is so necessary and

and useful an Ingredient if rightly and judiciously managed, yet is it certain) that it contains very inimical and pernicious Properties, they would never practise those violent, long, and repeated unnatural Beatings in of it into the Drink, which cannot but be attended with many ill and mischievous Effects, notwithstanding the common specious Pretences in its Behalf. Which I have in my former, as well as in the following Sheets, (I hope) fully confuted and made appear :

BUT farther to illustrate and evince the Truth of my Assertions, I cannot here omit the Case of a Person whose Father being a Tobacconist in London, sent his Son among his Customers at and about Stamford in Lincolnshire, where he fell into Drinking such Quantities of their Yeasty Ale as made him distracted, and so he remained till his obstinate Distemper yielded to the well adapted Medicines of an ingenious Physician, who after some Months Keeping him in his House about thirty Miles from London, at last brought him to his Senses again.

ANOTHER Instance of the ill Properties of Yeast were demonstrated in the following Experiment, (which I had from an ingenious and learned Gentleman who was an Eye-Witness of its Veracity) viz. That some Slices of Bread were put into about two Quarts of Yeast, which an hungry Dog lick'd up for the Sake of the Bread; the Consequence was this, the Dog died in a very little time after, being very much swelled, as it had been with a Dropsy :

THEREFORE I must necessarily join with those judicious Gentlemen, who are of Opinion, that the Drinking of yeasty Malt Liquors, whether new or stale, is the chief Cause of those too frequent fatal Diseases the Dropsy, Stone &c. among us; for if Malt Drink be
hard

hard or stale, in many Constitutions it is manifestly apt to generate fabulous Concretions, not only in the urinary Passages, but in other Parts of the Body; and it is evident that it receives this Staleness or Acidity chiefly from the Yeast, which the Drink is impregnated with, as it serves for a Lee for the Liquor to feed on; just as if we were to put any Quantity of an unwholesome bruised Herb or Root into a Cask of Drink, we might reasonably expect the Liquor to be tinctured by it, and to be endued with its ill Qualities: So that it plainly appears how very necessary it is (if we would enjoy wholesome and palatable Malt Drink) to free it as much as possible from that destructive Acid.

I HAVE likewise in this Second Treatise farther enlarged on the great Use of artificial Compositions or Lees, and particularly recommended those late invented most excellent wholesome BALLS (mentioned in Page 96 of my former Part) which have so deservedly gained such a Repute, and which are so highly necessary and useful for all Keeping Malt Drinks especially, whether Pale, Amber, or Brown, to have always in them, as nothing can contribute more to their Fining, Feeding, and Preservation in a mild and sound State, and are perfect Antidotes to the ill Qualities of the Yeast, Feces, &c. Likewise of such a curing and improving Nature, that by their sole Use I have even recovered damaged or prick'd Drink and Cyder, and will answer in Wines. These BALLS are sold with proper Directions at the Booksellers whose Names are prefixed to this Works.

ANOTHER too common Misfortune of our having unwholesome and ill tasted Beers and Ales (especially in Warm Weather) is by what is commonly called Foxing, or more properly from a Putrifaction they are liable to in passing through their several Managements, the Cause, Prevention, and effectual Cure of which grand
Evil,

The P R E F A C E.

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Evil, I have here freely explained and communicated; with several other Matters of great Importance, which duly attended to, will contribute not only to the establishing the Brewery upon a better Footing, but manifestly augment the HEALTH, PLEASURE, and PROFIT of the Subject in general.

ERRATA.

Page 18. Line 24. Read, I come now. p. 59. l. 10, for page 3, read, page 111. p. 61. l. 13, read, that a Pond.

Just Published,
New Experiments
IN
HUSBANDRY, for the Month of April.

NUMB. I.

CONTAINING
SEVERAL Processes of Plowing various Lands. The Transcendant Uses of the late invented Hertfordshire Double-Plough. The Improvements of Grain, Grasses, Manures, and Trees. The Prevention and Cure of Rotten-Sheep; also of the Red-Water, Foot-Rot, &c. Keeping of Hogs, Cows, and Horses, from Diseases. The Bites of Jockeys exposed. Of Pickling Pork, and the proper Vessels to keep it in. The Breeding of Fowls. A New invented Roll. Several curious Letters concerning Husbandry, and the Author's Answers. With other Beneficial Matters tending to the Improvement of this most useful Science. And is not only necessary for all Farmers, Graziers, &c. in this Month, but of great Importance all the Year after.

By WILLIAM ELLIS, of Little-Gaddesden,
near Hempstead, in Hertfordshire.

Printed for the AUTHOR, and sold by Mess. Fox, in Westminster-Hall; W. MEADOWS, at the Angel in Corn-bill; T. ASTLEY, at the Rose, in St. Paul's Church-Yard; W. BICKERTON, at Lord Bacon's-Head, without Temple-Bar, and E. WITHERS, at the Seven-Stars, opposite to Chancery-Lane, in Fleet-street.

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C H A P. I.

Of several Errors and Abuses committed in making BARLEY and WHEAT MALTS.

MALT, like many other Artificials, is most genuine when it is nearest to its Original Nature; and that is so, when it is of a white or pale Amber Colour, as the Barley receives the same from the Earth; for if it is otherways, it is occasioned by some Violence done to its Nature; as when it is over-ripe, or wash'd by Rains to a great Degree after it is mowed, or by its being heated too much in the Mow: So likewise is it in Malt, whose true Tincture and Colour proceeds from its fine Spirits and essential Vertues; for when the Colour is changed in making, the Vertues of it are also; that gives the Drink, a different Nature, occasioned by some Violences done to the Spirits and fine Properties of the Malt, by the fierce Spirits and hot Vapours of the Fire, that change its mild Qualities into their own fiery Nature; which makes it plain, that all Digestion is most natural that preserves its true Colour most intire; so that the high coloured Brown Malt is parched and brought by the Potency of the Fire into a State

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2 *Of several Errors and Abuses committed*

very remote from that Purity, which the true made Pale or light Amber coloured Malt enjoys; from whence is produced the high Blood-coloured Ales and Beers, that many ignorant Persons cry up and admire as a Vertue or good Quality. But to be more particular on this Subject of Malts, I shall recite the Opinion of two Physicians that have appeared in Print: One says, — “The contrary is to be understood, and nothing in Malt is a greater Vice or Evil, and the Drink made thereof, together with its long Boiling with Hops, does seldom fail to wound the Health of the Drinkers thereof; its natural Operation in the Body, is to heat the Blood, destroying Appetite, obstructs the Stomach, sending gross Fumes into the Head, dulls the fine pure Spirits, hinders the free Circulation of the Blood, by stagnating the Humours, and in the cholerick and melancholy Complexion generates the Stone, Gravel, Gout, and Consumption: This Sort of Drink is also very injurious to Women, especially such as are with Child or give suck. — The other, who is a more late Writer, and one of the greatest Reputation, says, “That Brown Malt makes a Drink much less viscid than the Pale, and fitter to pass the several Strainers of the Body; but what is very strong of it, may be used in Excess enough to bring on several Inconveniencies of Health, tho’ a single Debauch with it, much more easily wears off than one occasioned by Drink made from Pale Malt.” The same Author further enlarges and says. — “That Pale Malt has certainly most of the Grain in it, as being slenderest dry’d, and is therefore most nourishing; but also that very Reason requires a strong Constitution sufficiently to digest it. Those who drink much of it, are generally sleek and fat in the Bloom of their Age, but if they are not suddenly cut off by Fevers as they

" they generally are, they fall very early into a dis-
" tempered old Age, and hardly support the Bur-
" den of Life, with the Retinue of Diseases." —

Hence it appears, that the Pale and Brown Malts are Extreame, one being too slack, and the other too high dried ; which made the former Person write that all Extreame were degeneracy from the Nature of true Amber Malt made by a mild and gradual Operation ; for then it would not be so apt to send dulling gross thick Fumes and Vapours into the Head, nor to heat the Blood, or obstruct the Passages, especially if Drink made from such Malt was of a middle Strength, and used before it was stale ; then it would deserve the first Place of all fermented Malt Liquors, and be the best against the Generation of the Stone, Gravel, and Gout.

The second Error is, that tho' Amber Malts are truly the best of all others ; yet in the making of these, there is often a great Abuse committed by several of its Makers, and that by an unnatural drying of it on the Kiln, which is done out of a covetous Desire of drying a great deal of Malt at once, in order to save Fire, Time, and Labour : To do this, they put it seven, ten, or twelve Inches thick on the Kiln ; which never fails damaging the Malt ; for the thicker it lies, the stronger the Fire must be kept, which will be apt to burn that which is next the Hair-Cloth, whilst that which is uppermost is neither hot nor cold, and thereby are the sweet spirituous Parts flattened ; for notwithstanding all the Diligence that can be used, there is no drying it equally, because the Thickness thereof will force it to send Damp excrementitious Vapours, which Effluvia consequently re-enter such Malt, wounding and suffocating the finer Vertues and sweet Qualities, which gives an ill Taste to the Malt and the Drink made thereof : Besides it makes but little Drink, and that not good nor wholesome : And if strong Drink

4 *Of several Errors and Abuses committed*

is made thereof, it's evil Juices are more perceptible by heating the Body, and stupifying the Senses by it's gross heavy Fumes, which renders such Malt a great Enemy to Nature; for sure it is, that every Fault committed in the making of it, affects the Drink more or less; which has begot an Opinion, that there is hardly one Bushel in four rightly made throughout the Nation; and this is chiefly the Reason there are so many bad Sorts of Beers and Ales: Whereas formerly they used to be so careful to let the Malt lie only three four or five Inches thick on the Kiln at most, with a constant Fire not too fierce, and yet indifferent Brisk, which preserves the Spirit and Life of the Malt; for it may as well be too strong as too weak; when too weak, it flattens and dulls the spirituous sweet Qualities; and when too strong, it fires and stagnates them.

The third Error is in drying Malts. They are apt to be tainted by the Smoak through the Carelessness, Covetousness, or Unskilfulness of the Maker. For Smoak, as a Learned Pen defines it, is a stupifying keen Fume or Vapour, full of dark sulphureous Excrements, cast forth by the Fire, containing a gross Humidity, and fiery sharp Qualities very pernicious to Health, as it proceeds from the poisonous Juices of the Coal, Wood, &c. For Fire divides and separates the Forms and Properties of Nature; it is an Excrement all People desire to avoid, as being prejudicial to the fine volatile Spirits, and therefore offensive to the Eyes, where the natural Spirits have their Passage; for which Cause Smoak does first offend the Eyes, or any other stupifying Steam inwardly or outwardly; wherefore when any smoaky Drinks or Meats are separated in the Stomach, the Fume or Vapour thereof naturally ascends to the Head, and is very offensive to Nature, especially the Eyes (as Coal or Wood Smoak does) for it contains two pernicious Qualities, a fulsome
Bitter

Bitter, and a strong Astringent. Therefore all the Care possible must be taken that it is smoaked as little as can be; for that Smoak helps to advance the dull heavy reddish Colour in Drink, which shews the Excellency of the late Invention of drying Malt with Coak or Culm: And also the pernicious Practice of drying with Wood, Furze, or Ferne, &c. which yield a most disagreeable Smoak; yet must it pass thro' the several Kernels of the Malt, and thereby impregnate them with it's bitter, fulsome, unwholesome Qualities; which does not a little raise my Detestation and Abhorrence of that common Error and Imposition on the Ignorance of the People; and the more, when I consider the great Quantities of such Malt, that are annually consumed in some Parts of the West of *England*, and some other populous Cities and Places, in their Butt-Beers and Ales, notwithstanding the small Difference of Charge that there is between drying with Coak, Culm, and Straw, and with Wood, Furze, Fern, Peat, and Scrubbe, besides the great Inconveniency of the Wood-fire, that can't be so soon check'd nor extinguished as others are, which exposes the Malt to a Damage accordingly:

The Fourth Error is a very knavish, subtle one, indeed; and that is what tempts some Maltsters to suffer the Barley but to half spire, shoot or sprout, on the Floor, in order to save Time, Labour, and Charge; and then such Malt will have a third, fourth, fifth, or sixth part Barley in it, which consequently must deceive its Brewer; for the Barley part will never yield its Goodness like that which is malted, and so the Drink becomes in a great Measure spoiled.

The fifth Error is, what is called in the Cant of a villainous Maltster, Dressing of Malt, but honestly explained, it is no other than a Bite on the Buyer, and is thus managed; before the Malt is carried out

6 *Of several Errors and Abuses committed, &c.*

our to answer its Sample or Boyce; A Man takes a Garden Pot, and with it sprinkles Water over the Out-side of a Heap; then with a Shovel he turns it, and does the like, and so on till he thinks it enough. Thus he plumps, and swells the Malt Kernels, that to the Buyer seem bigger than the common Sort, and contain more Flower than the smaller ones can: But this Artifice carries three Reasons with it: One is to forward its Sale, the other to enhance the Price, and the other to fill the Bushel with fewer Corns. The Truth of which would plainly appear, if such Malt was afterward to be kept in a Heap a Month, two, or three; for in that Time, it would grow musty, or matt together, and very likely to breed those devouring Insects called *Whools*.

The Sixth Error and Abuse, is owing to the Carelessness of the Maltster, who either himself, or by suffering others with their Shoes to tread on many of the Corns of the Malt while they lie working on the Floor, which is often attended with ill Consequences; for by bruising the Kernels, there immediately commences the Growth of a Canker, that will shew itself in a Bunch, turn green, and perhaps one of them may infect six sound ones, and more, if the Misfortune happens to be in the Months of *March, April, and May*; by which Means a great deal of Drink has suffered in its Taste, and proved unwholesome to the Drinker. For this Reason a careful Maltster will put on a pair of Shoes made of an old Hat; and indeed, it is a pitty the Exciseman is not obliged to do so too; and then, in my Opinion, there would be less Damage done by dirty hard Shoes in the Malt-house; for as he walks between the Heaps, sometimes for near twenty Yards together, there commonly lie many loose Corns that are unavoidable to the Tread, and these consequently must be bruised and canker'd, to the great Prejudice of the Maltster, and

and more to the Drinker of Liquor made from such unwholesome Kernels. So likewise have I Reason to write against the careless Turner of the Malt, who often, I may say, is guilty of doing the like Damage to the Malt by his Shovel, when it's employed in the Movements of the several Heaps, where it necessarily breaks and bruises many of the Kernels, by jobbing it in amongst them, and scraping along the Floor. But these are but few in Comparison of the many others that are incident to Barley and Malt. Of which I intend to enlarge on in my 3d and last Book.

C H A P. II.

Of W H E A T - M A L T.

WH E A T as it is the most excellent Grain of all others, and as such appointed by the Creator for the Nourishment of the human Body as an Eatable, has tempted my Pen to publish also its fine Quality in producing a good Drink, that no other Grain whatsoever can equalize for its peculiar Virtues; which has surpriz'd me to see that Wheat-Malt should be neglected, tho' this Grain has been sold in our Markets at three Shillings per Bushel, a few Years ago, for three Years together, and only Barley and Oat Malt in Reputation: Whereas this at three I believe I may venture to aver, is upon a Par with Barley at two Shillings, and Oats at one Shilling and Six-pence per Bushel for making of Malt, and far beyond both for making Strong Beer; also particularly for that famous and nutritious Liquor Mum, that has for some Years past been made by the *German*s and others, to the just Reproach of the *English*, who thinking themselves compleatly furnished by Barley and Oat-Malt Liquors have supinely neglected

ted the Improvement of the best of all others, and that is Drink that might be made from this delicate Grain Wheat, for the following Reasons, viz.

First then the Flour of Wheat is much finer than that of Barley; and the finer the Flour, the finer the Drink; so also is the Bread made of the one and the other, that bears very distant Proportions of Goodness: The Wheat eats smooth, mellow, sweet, light, and nourishing; when the Barley eats rough, coarse, moist, heavy, and is scouring: Wheat Malt also differs much from Barley Malt; for the former, if well made, will return a pleasant, brisk, nourishing, wholesome Ale and Beer; while Barley-Malt is apt to make a more heavy, scorbutick, and less nourishing Liquor; because,

Secondly, This Wheat-Malt is more natural to the humane Nature, as it is made from the Staff of Life, provided it is not too high dried, and the Goodness burnt away to please the Fancy with a high coloured Drink, and so lose the purest Substance of the Malt according to the Proverb. — I don't care how white my Bread is, nor how brown my Drink is. — But this Proverb was first on Foot, before the Method of making Pale Malt was known: Also if this Sort of Malt is made from impure Wheat, then good Drink must not be expected from it; for such as the Malt is, such will be the Drink; as for Example: In a cheap time of Wheat, and in a dear time of Barley, which sometimes happens, it has been the Practice of a certain Brewer (I have been told) to buy up the smutty Wheat at a very low Rate for making Malt; because when Wheat is thus damnified, there are few that care to make Bread with it, unless it be in a dear time: But when such Grain is malted, it is less perceived in keeping Burt-Beers, than in Bread: Besides, in malt-ing, the black or smutty part of the Kernell is better lost than in the Wheat-Mill; for here the working
of

of it on the Floor, and the Fire of the Kiln cure that in a great Measure which the Stones can't, because the good and the bad parts are mix'd and ground together; when in malting, they are better separated and cured, yet not wholly discharged from the Tincture of the Smut, which is the bad Part of such Wheat Kernel.

Thirdly, It has been experienced that the *Dugdale*, or any other coarse Wheat will make good Malt and Drink, which may be a valuable Opportunity to many, because this Sort of Wheat grows only on some ground, and in some Countries where others can't be conveniently had, as in many Places of the North; and also on four Grounds in the South, this Wheat will best grow, and be a surer Crop than any other Sort; nor will it be damaged by Blights and Wets, when others are, by Reason of its great Out-guards, its Beards. This Sort of Wheat also is sold considerably cheaper in the Markets than any other, as being of a coarser Nature than the rest for making of Bread, but little inferior in Goodness for making of Malt, which gives an advantageous Opportunity, to a Person that thinks fit to make Malt of it, to enjoy its Ale or Beer at a low Price.

Fourthly, This Wheat-Malt has an admirable Quality in it, that no other has, and that is, the Drink of it will never be windy, which is a pernicious Quality inherent to most other Liquors, and is very unwholesome in Barley and other Malt-Drinks; but this, whether in Barrel, or Bottle, and kept ever so long, will always be free from that mischievous Effect.

Fifthly, The Goodness of this Malt discovers itself in making more potent Ale and Beer, than any other Sort can; for if eight Bushels are allowed to a Hogshead, and such Liquor be made too free with at only nine Months Age, it will be very apt to intoxicate, but with less Prejudice to the Health of the Drinker, than any of these unwholesome Barley-Malt

Malt Liquors, whose Bodies are too commonly loaded with large Quantities of that pernicious Acid, Yeast.

Sixthly, This Malt is best made when it is managed by the Workman with Carefulness and Labour, soak'd in good Water, and to have its due Time in the Cistern, Couch, and Kiln. This is the main Art of making Malt; because where it is work'd too fast, and too hot, such Malt will certainly fail answering our Expectation. And so it will if the Wheat by Wets has first grown in the Field after reaping, or heated too much in the Mow; for then this, as well as Barley Malt, is very apt to rot in the Couch; and when it is laid on the Kiln to dry, it must be spread thin, and have a leisure Fire; otherways this Malt can never be well made, which reminds me of an Inn-keeper's Answer, (who brewed his own Drink) when I ask'd him the Reason why his Drink was so bad: He reply'd that it was the Fault of the Maltster, who would not allow the Malt a due time on the Floor nor Kiln. And so it is sure enough with too many of them, who, to save Time Labour, and Charge, run off the Malt too fast to be well made: But if you'll have Wheat-Malt in a right Condition, it must have a due Time on the Floor, that it may spire gradually, and a slow Fire in the Kiln, that its Flowery Part may be soft and in full Body: Then its fine spirituous Balsamick Qualities will be preserved in the Malt, and be communicated to the Drink, whereby it will answer those Ends that I have here propos'd. In short, the Ale or strong Beer made with Wheat-Malt is thought by many that have proved it to be the very best of all Liquors.

Of Water for Brewing Wheat-Malt.

This Element is particularly to be regarded as it affects Brewing; because there is no making of good Drink without good Water, be the Malt ever so kind in itself; nay, it is of such Consequence with Regard to our Diet, that as an eminent Physician has lately observed, we cannot be too Inquisitive into its Nature and Difference; nor too Sollicitous and Nice in our Choice of it; and therefore charges the Inhabitants of our great City with a gross Neglect in this Respect, for chusing of stagnating impure Clay Well-water for brewing of Beer, and making other Drinks.

Of Brewing Wheat-Malt.

The Art of Brewing well, next to good Malt, Water, and Hops, is certainly of great Consequence; because let a Person have all these in their full Perfection, yet he may easily spoil and marr all, if he does not understand the true Method of making them into Ales and Beers; and for this Reason it too often happens amongst those that casually hit on the right way at one time, and miss it another, to lay the Fault on the Malt, Water, or Hops, in extenuation of their own Ignorance; when at the same time, they are the sole Cause of the Misfortune for want of due Judgment in this useful Science: I shall therefore here make it plain to mean Capacities, how they may obtain good Drink from good Ingredients.

And, first, I will suppose my Copper to hold Thirty-six Gallons, which is a Size sufficient for an Ordinary Family, and that I am to brew six Bushels of Wheat-Malt, for making a Hoghead of good Family-Ale; for which Purpose I have a good soft Water from a Chalk or Stone-Well, or clear Water from

from a River, Rock, Pond, or from Rain: A Copper full of this, I heat as fast as I can under the Cover of a Peck of the hully Part of the Malt, or of Bran, which will expedite its Heat, and clear the Water; so that it may be skim'd off for the Hogs, or put into the Mash-Tub with the Water when it is ready to boil or just broke: Then either let it lie till the Vapour is spent, so that you may see your Face in it, or as soon as the hot Water is put into the Tub, put a Pail or two of cold into it, which will temper it at once, and keep the Spirit of the Water from evaporating: Then immediately put five of the six Bushels of Malt into the Tub by degrees, stirring it with a Paddle or Oar just to keep it from balling and no more. When this is done, spread the reserved Bushel all over the rest, and let it remain so two or three Hours. Thus not only the Spirit of the Water is preserved, but likewise that of the Malt, which will surely greatly improve the Drink, by giving it a fine Haugst, or a true Tincture of the Malt: Then turn the Cock about half way, and receive three or four Hand-Bowls full of the thick part, and return it over the Malt, and so continue till it runs perfectly fine; for on this depends very much the obtaining of clear Drink in the Barrel; and therefore the nice Brewer will spend it off as small as a Straw, and let it run into the Under-Back or Tub on three or four Handfuls of Hops; and when four or five Gallons are thus run off, lade over three Handbowls or Gallons of boiling Water on the Malt, and immediately put as much cold Water into the Copper to supply their Place, which will be at the full Heat again by the Time the last are discharged, and so continue lading over hot, and filling the Copper with as much cold Water, till a Copper of the first Wort is run off, which must be set by for some time in a large clean Tub too, and it will take no Damage; for the
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Strength of the Malt, and a few more Hops will preserve it sound : Then proceed and put over another full Copper of scalding Water by three Hand-bowls full at a time on the Goods, free of any cold Water till all is expended ; which when done, put this second Wort into the Copper by its self, and boil it away briskly for half an Hour : Then put in a Pound of loose Hops, and boil it again half an Hour more ; by which time I will suppose the Wort to be broke enough : But to be more certain in this material Point, you may, as soon as the Wort begins to boil, put in a Pound of Hops in one or two Canvas or other coarse Linnen Bags, and boil them only half an Hour as fast as can well be done, when they must be taken out ; and the Wort kept boiling on, 'till the Particles which will be very small at first, become larger and some ragged ; then it is truly boiled enough, and must directly be put into the Backs or cooling Tubs to lie thin, not above four or six Inches thick.

As soon as the second Wort is out of the Copper, put in the first, and boil it away in the same Manner, and with the same Quantity of fresh Hops as you did the last, taking care to keep back the loose Hops that were first put in to preserve it while in the Tub ; and when the Particles are ragged, dispense it into the Coolers.

Thus you'll give both the Worts and the Hops their thorough boiling in the Copper, and thereby enjoy their fine Flowery and spirituous Parts, and avoid their gross, unwholesome, and Phlegmatick ones ; for without they have their due Cure here, the Drink can never be right clear and good in the Barrel : But observe, that

The second Wort will never break so soon as the first ; and even that will be sooner or later, according to the Nature of the Malt, Water, &c. which is the Reason that a limited Time of boiling must not be

be trusted altogether to, for a true Indication of the Wort's being enough; and therefore it is necessary to make a right Judgment of it, by viewing a little of the Wort now and then in a Hand-bowl, till it appears as I have before mentioned.

I knew a skilful Brewer that never stopt his Cock after it was once set a running, till he had all his first and second Worts run off; which has this excellent Conveniency in it, that the Goods or Grains have then no Power to sour or taint the Wort by its standing on them; a Misfortune that has spoiled many Thousands of Barrels of Drink, brewed after the old Fashion: And when he had thus stopt his Cock, and mash'd up the Grains with such a Quantity of cold Water, as he thought fit for his Small-Beer, he let it stand altogether an Hour in cold Weather, and something less in hot, before he drewed it off; then would boil it half an Hour with some fresh Hops, and an Hour after that by itself; for Small-Beer Wort must not be expected to break at all.

But by some a Cover is made use of, while the Water is heating or boiling in the Copper, and by many while the Malt lies liquored in the Mash-Vat, that the Steam or Vapour mayn't evaporate. I also solicit your Care, on account of the Wort's breaking in boiling, which you may likely perceive, if you slack your Fire in half or three Quarters of an Hour: And then if the Hops are all sunk, the Wort appears clear like Sack at top, and the small Particles play about like knits; then let it boil a little longer, and they'll be as big as Lice with Rags or Flews about them; that are sure Signs of the Wort being boiled to the Heighth; and this will sooner happen, the more furious you boilt it; but if you boilt it much longer, it only wastes, and rather hurts it; nor will it work so well in the Vat, nor fine thoroughly in the Cask; because then it will obtain a more viscous Body; for as it comes

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out of the Copper, in such a Degree of Fineness, it will come out of the Barrell. But observe, that pale Malts won't break so soon as Brown, nor the second Wort so soon as the first; and small Wort not at all.

C H A P. III.

Of the good and bad Properties of the Hop.

I HAVE here undertaken to write of one of the most simple and purest of Vegetables, and yet, perhaps, the most abused of any other, both in its Use and Character. The purest, I say, because of the many fine Odoriferous, Aromatick Spirits that the Hop is indued with, as appears by the Sense of smelling on their being rubb'd and held to the Nose, and which are easily communicated to any Liquid, as these Spirits have their Residence mostly in the outward Parts of the Hopp, and are so tender, that they are not to be retained without being ram'd and bag'd to prevent the Air's Attraction, and the Escape that their fine Spirits are always ready to make: And for this Reason it is, that New Hops are so preferable to Old; because, notwithstanding all the Art that can be used, yet with Time will their subtle Spirits be expended in some Degree, and diminished in their Vertue as they lie in the Bag. But when this flowery pure Part of the Hop is singly and rightly obtain'd and incorporated with Ale or Beer, it then administers a most balsamiack, opening, and penetrating Quality to the Body of Man, that the Virtuoso's in Physick declare will powerfully purge by Urine: And therefore are a special Remedy against breeding the Stone, as well as a great Strengthenener to the Stomach by its aromatick bitter Quality; and by its discurient and aperitive Nature, good

good in all Obstructions of the Viscera, and particularly of the Liver and Kidneys. It is this Noble Property that gives the Ale and Beer a fine Flavour, and causes that smooth Gust, and pleasant Taste to the Palate, which after a proper Age in the Malt Liquor, every Drinker enjoys both in Mouth and Body, and 'is the true Homogeneous Quality created for the Service of Man; and not only in the Hop, but in all other kind of Vegetables; to preserve which, the Curious make their Raisin and other Wines, only by infusing their tender Ingredients in Hot Water, as knowing that boiling would extract their worser Part, and evaporate their better: As is also plain in all express'd Vegetables, particularly the Apple, whose first strong spirituous Juice, or Running from the Press, exceeds, for Taste and Health, the Weak gross Parts of the second; and for this Reason it is that Wormwood, Broom, Century, Tanzy, Sage, Carduus, or any other bitter Herbs, ought to be first dried, and then not suffered to infuse above a quarter or half an Hour at most in Wort; for in these there are harsh, earthy, austere Particles that are very ready to be emitted, and the warm Wort will quickly bring forth those worser Parts that will devour, suffocate, and destroy, the fine spirituous Virtues, and cleansing Properties, and then such Drink becomes of a hard, harsh, astringent Nature, apt to obstruct the Stomach, and send Fumes and Vapours to the Head, heating the Body and Blood too violently. And thus it is with the Hop when imprudently used; therefore the common way of infusing and decocting Herbs a long time is injurious to Health. As for Example, formerly they put a Quantity of Wormwood into their Butt-Beer, and there let it lie infusing, or rather rotting, four or six Months, till all the Drink is drawn; whereby the opening, penetrating, brisk, fine Spirits of such Vegetables are totally destroyed, and
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in their room the Beer is impregnated with their terrene and saline Parts, which contain harsh, bitter, churlish, and inimical Properties: For these Reasons, says a Physician, such common Wormwood Beer does not only hurt, but by degrees weakens the natural Heat of the Stomach, and sends heavy, dull Vapours into the Head, and so prejudiceth the Eyes. The Hop also, besides its fine volatile spirituous Part, which is readily extracted by a gentle warm Infusion, and is a most agreeable and wholesome Bitter, has likewise an innate, gross, terrene, and saline Part, which is thoroughly communicated to the Liquor by long Cotion or steeping, and is a hot, very acrid, unwholesome, and disagreeable Bitter; yet is deem'd by the undiscerning Vulgar, a good Property. Indeed strong and fierce it is; but so far from being a Virtue to the human Body, that it certainly is injurious and destructive to it, in breeding the Stone and other Diseases: Hence it is, that all Drinks, especially the strong stale Sorts, that have the Hops boiled in them two or more Hours, strike the Palate with a harsh, rough, unpleasant, bitter Taste; and yet it was but very lately that I happened to be in a Brewhouse at *London*, where they wetted about thirty Quarters of Malt a Week, that the Master presented me with a Tankard of his Strong Beer, applauding it at the same time for having six Pounds of Hops boiled two Hours in each Hogshead; which is perfectly heterogeneous to the true Management of the Hopp, tho' he ignorantly extoll'd his Skill in a bad Action; for both in the Hop, and all other Vegetables, 'tis but lost Labour to boil or infuse them, beyond their first pure Spirit: Therefore boiling the Hop afterwards, is not only superfluous, but injurious, and serves only to raise and induce those acrid, bitter, and noxious Particles that so greatly damage the Drink; yet were never intended for the Use of Man, as being hurtful to his Nature, when

unduly separated from its better and light Parts. How much then does the ignorant Man abuse his Health, when his whole Drink has this second and worser Part of the Hop boiled in it! Alas! I cannot help being concerned for my fellow Creature, and pitty his supine Negligence in not regarding any Hints of this Nature, when it has been told him; because ill Customs have greater Power over a Man than Law or Nature, and nothing but a long Practice will convince the unlearned and obstinate Man: But to prove my Assertion plainer: Let any one take a Pot of Beer or Ale, and while it is warming, stir in it two or three Sprigs of Wormwood; then take it out, and let it drip into the Drink, and he'll find it presently bittered with the true fine Flavour and Spirit of the Herb: By all which, I think, I have sufficiently made appear, that the good Part of the Hop conduces to Health, while the bad Part deprives a Person of it. And so in most other Vegetables there are, surely, healthy and unwholesome Parts, that must be managed accordingly to enjoy the one and avoid the other. — But more of the Hop in my Third and last Part.

But I now I come to treat of the Use of the Hop, as it relates to Brewing. This fine Vegetable therefore I can now affirm, has at last obtained a just Reputation in some Parts of the Nation, under the due Notion of its good and bad Properties, by the Gentleman and Tradesman. As to the first, I know several that have been so nice in its Use, that they allow but half an Hour's Boiling the Wort and Hop for *October Beer*, as the common Brewer (I am told) does his *Dorchester*, as well as several Tradesmen that I am acquainted with: And one Gentleman, more careful than all the rest, is said to boil both, only a Quarter of an Hour: But, in my humble Opinion, they are none of them right yet; for tho' the Hop by half an Hour's Boiling in Wheat or Barley

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ley Malt Wort, has its full time allowed, it I think the Wort has not; and therefore the several Beers that I have tasted, of several Persons Brewing this way, all of them, to my Judgment, were rather too sharp; which I impute to the under-boiling of the Wort, as not having its due Cure in Boiling, that naturally renders it in some Degree so with Age, notwithstanding the Hops Power; for if it han't its Cure in the Copper, how should it in the Barrel? boiling being appointed for the first Digestion of the Wort; and that will certainly be deficient, if the Cohesive Parts of the soft Wort are not broke and hardned; then it will answer two great Ends, *viz.* First, when the Wort is so much boiled (which commonly is in about an Hour) that it curdles and breaks into large Particles, it will be capable thoroughly to settle in the Barrel; without which it can never be truly fine nor healthful, but consequently will be the Cause of Gravel, Stone, and Cholick in some Constitutions; for that the ropy, tenacious Parts of the Wort, are not comminuted, separated, and discharged, sufficient to make its true Feces, till it has its mature Boiling. Secondly by this Cure of Boiling, the Wort is divided and hardened, consisting of numberless individual Particles, which gives a greater Power to the Yeast by Fermentation, to make an easy Discharge of their excrementitious Parts, and so is more able to resist Eagerness and Putrefaction; witness the Wort that is brewed for making what is vulgarly called Vinegar; which being neither boiled nor hop'd, but only fermented, will in a very few Days Time make this Aleager or Vinegar, if it is set in the Sun or by a Fire. It's true, indeed, that the Bitterness of the Hop does naturally hold the sweet Body and volatile Spirits, and as it were captivate them, being their mighty Defender against those keen Properties, that otherwise would advance and devour the sweet mild Qualities; But then, as I take it, this Power

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of the Hop is confined only to the State and Condition the Beer is in, when first put into the Barrel; and therefore if such Drink is runn'd in any imperfect undigested State for want of its right Boiling, it will not be improved by the Hop beyond its original Nature.

Now that both the Wort and the Hop may have their due Cure, in the Copper as well as the Barrel, boil the Wort by itself half an Hour, and then rub the Hops well, and put them into the Wort, either loose, or, in a Bag or two, and boil all together briskly till the Wort breaks, as I said before; then strain it into the Coolers very shallow. The Quantity of Hops on this Account for a Kilderkin of *Ostober* Beer, should be, at least, three Pounds to be tapp'd at nine or twelve Months end, according as the Drink is mellowed and the Hop rotted: And so for Ale in Proportion to the Strength of the Wort, and the Time it is to be kept. To please my own Palate, I boil two Pounds of Hops in a Hogshead of mild Ale, the last half Hour, and find it answers extreamly well, tapp'd at about six Weeks end, without Regard to the hot Seasons or Blossom Time in Brewing it, as being under no Apprehension of a Miscarriage, provided my Malt, Water, Hops, Yeast, and Conveniencies are all in due Order. But to be safe in this Management, you may put a little Wort (somewhat cooled) upon the Hops before they are put into the Copper, to prevent what we call scalding them; and then the Hops will emit their Virtues more free, sooner, and regular, than when their Virtue is lock'd up in them by the fiery Heat of the Boiling Wort, there being also a resinous and clammy Nature in the Hop, which is best opened and divided by a previous gentle Heat; or when you have boiled one Parcel of Hops in a Bag half an Hour, as I said before, you may take them out, and boil such another Quantity of fresh Hops till the Wort breaks;

breaks and thus a small Bag may be used in a little Copper, which may not so well agree with a large Vessel.

C H A P. IV.

*Of the Nature, Prevention, and Cure of Tainted
Fox'd Utensils and Malt-Liquors.*

THIS is a most necessary Article in Brewing, and one of them that has been the least taken Notice of by Authors, altho' of the utmost Importance; because by this Evil, there have been many Thousand Barrels of Strong and Small Drink spoiled, both by common and private Brewers, who generally seem more wanting in this Knowledge, than of any other Branch of Brewing; and therefore if my Pen can be serviceable to the Publick, in remedying this grand Misfortune, I shall account it a valuable Opportunity of making known what I have learn'd and experienced in this Affair, in order to prevent those great Quantities of distempered Beers, Ales, and other Liquors from coming into the World for the future, as has been for many Years past, to the great Damage of the human Body; because when these Drinks are thus tainted, they can never be made thoroughly sound and fine in the Barrel; but will remain always in a nauseous, unhealthy, thick Condition, and be offensive to the Taste and Stomach; which undoubtedly will contribute to the Breeding of Diseases; and that by Reason the Misfortune consists first in the tenacious Thickness or Ropyness of the Drink, and the evil stinking Scent that arises therefrom, which has brought it under the Denomination of being foxed, and, indeed, is justly deserving of that or a worse Comparison. Now to account
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for this Disaster, it is generally allowed to proceed from six Causes: First, from the Nastyness of the Utensils. Secondly, by the Filth and Corruption of the Water. Thirdly, by taking the Liquors in wrong Heats. Fourthly, by the Mustiness or other Damage in Malt. Fifthly, by the Wort's lying too thick in the Coolers. Sixthly, by letting them too hot into the Tun, or fermenting them while they are so. By all which, or by any one of these ways, may this abominable Sicknes in Beer or Ale be bred; as new Milk is soon turned and spoiled, when put into unclean Pans; for this, like Wort, is of a pure Nature, and therefore the least Nastiness is, in some Degree, prejudicial to them; because all Dirt, Sullige, and Fur, that is left in the Crevices, and on the Sides of the Tubs and Utensils, contain in them a certain Acidity, that, like Renner in Milk, sours and turns the Wort, more or less, from its thin, pure, loose Parts, into a fœtid, stinking, Treacle Consistence, which commonly remains in it to the last, and will rather increase, than decrease; so that such Beer or Ale can never be made truly sweet again by the Art of Man; but, as such, will taint and poison the Coolers, Tuns, and Barrels in which it lies; for I have known it so Predominant, that it han't been got out for a Week or more together, to the great Prejudice of both Seller and Buyer: And sometimes I have heard of a whole Guile together of Strong Drink having been turned down the Kennel, as not fitting (when the Taint is in a great Degree) to be carried to a Customer's House: But to cure this horrid Misfortune, some are so silly among the private Brewers, to wash their Tubs or Coolers with only boiling Water, as thinking it the readiest way to scald it out; but, in Truth, it is scalding it in; for Boiling Water does only drive further back into the Wood a certain sour, fulsome Quality that the former Wort left behind, and which the Wood

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of the Coolers or Tuns has suck'd in, the Humidity, or sweet Quality that the Wood receives from the Wort, presently turning sour, very sharp, and keen, especially in the hot Season of the Year; so that when the fresh, new Wort comes into such Coolers and Tuns, it does most eagerly and powerfully attract and draw forth that lurking, keen, sour Quality that the Wood has imbibed and retain'd; which will occasion the whole to become sometimes only prick'd, or just tainted, and hardly perceivable to the Palate; but at other Times, when the Beer or Ale is infected very much, it is unsufferable both to Nose and Palate; and then such Drink will soon be sour: And this is one great Reason why such Quantities of Malt Liquors taste so mawkish, raw, and soon decay. And I myself, about twenty Years ago, had no other Knowledge to extirpate and drive out this Enemy, than to scrub the Backs and Tuns with only Coal Ashes and cold Water; whereas, in Truth, the Disease lies farther in the Wood than many imagine; and therefore is not to be got rid of very quickly, by such a palliative Cure: No, the Remedy must be according to the Disease; for in the Bottom of all Backs, Tuns, and cooling Tubs, there are Joints, down-right Pegs, or Dole-pins, which often receive and harbour the tainted Wort and Drink, and which are mostly imperceptible to the Eyes: 'Tis in these, I say, that the Distemper chiefly lies, and damages the succeeding Worts; for these Pins and Pegs are frequently swell'd by Wets, and dried again by the Air, and so are the several Joints, whereby they first receive, and then hold such corrupted Worts. Now as there is the Depth of an Inch or two in many of the great ones, it must be supposed, that a hasty scrubbing their superficial Part with only Coal Ashes and Water, is not soon capable of routing such a potent Enemy, whose nasty venomous Acidity and poisonous Nature, lurks in

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in the most subtle, difficult Places of the Backs, Tuns, and Tubs : Therefore some will put Stone-Lime over good Part of their Bottoms, and Water over that, to lie two or three Days and slack, in order to burn the Taint away ; which may do some Good : But then, as the Water and Lime acquires a plaistick Body, it becomes too thick to enter into the close Joints, and about the Pegs, as a thinner Body can ; and therefore I shall prescribe, I think, a much better Way, and that is: Take a Parcel of Wood Ashes made from Ash, if they can be got ; because they are the whitest, sweetest, and strongest, (but any other may do) and boil them in Water to a strong Lye, or Lee ; the Liquid Part of which lay over the Bottom of the Back, Tun, or Tub, scalding hot for some time, that it may have an Opportunity to soak and penetrate into the Joints and Peg-holes ; then with a Broom scrub the Sides and other Parts of them : This will be an effectual Cure each time it is used, if it is thoroughly done ; because of the great Quantities of searching fixed Salts, besides Sulphur, that is contain'd in the Ashes, which are contrary to the Nature of this Disease, and will prove a true Antidote ; and if the Coolers, Tuns, or Tubs, are after each Brewing wash'd and scrub'd out with cold Water, and then with this scalding Lye, it will prevent and cure this Malignity better than Lime, Wormwood, or most other Methods : For it has been found, that a Lye Tub, tho' generally neglected as the worst amongst the rest for a Cooler, has really proved the sweetest and safest of any for that Purpose ; provided there be no Soap mixed in it ; if there is, it will surely fox it.

What Consequence then must the Knowledge and Cure of this Evil be to those, that through meer Ignorance and Obstinacy, have brewed for several Months, nay, I believe I may say Years, in tainted Utensils, without so much as a Jealousy of the Misfortune

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fortune they have actually laboured under. It's true their Drink is sometimes better, and sometimes worser; because they are not always under the same Degree of Taint, but are never thoroughly sound; yet because their Backs, Tuns, or Tubs are not rankly damaged, all goes off under the Supposition, that it will be better next time; which has been the true Reason that many home-brewed Ale-house Liquors, have justly bore the Name of bad Drink, and yet the Brewer so ignorant as not able to account for it.

I once knew a Person that had only a Hoghead Copper in London, and entered himself at the Excise Office a common Brewer, that he might have one in the score allowed him free of Duty, so at a Loss, that he had a constant Fox in his Utenfils for two or three Months together, little or more, and which must have terminated in his great Loss, had he not had the good Fortune to be a Partner in a great Brew-house.

I also knew a Country-Victraller that brewed two or three times a Week, constantly foxed in his Tubs, and Barrels; but that was more than he knew himself, or would know; yet by his putting a great deal of Malt in his Drink, and the Ignorance of the Drinkers, this unskilful Brewer went on, and had his Share amongst others that better deserved.

Another way to cure foxed or tainted Utenfils is; to take Bay Salt, and put it into your Coolers, Tuns, or Tubs, and strew some on their wet Sides; then upon that scalding Water, with which when they are well soaked, scrub them very well. This Salt is allowed to be stronger and sharper than the common Salt, and as such will penetrate and enter into the minutest Joints and Pores of the Wood, where it will eat in, and eradicate the nasty venomous Particles of the corrupted Taint, and make a greater Cure at one Application, than Ashes and cold Water.

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will at several ; so that Brewers, great or small, need have no Apprehensions of being damaged a second Time, by the succeeding Worts or Drinks, if they will make a due use of the Rules in this and my first Book, and of this famous Receipt that has often been try'd and approved of, for answering this Purpose, by several eminent Brewers : This Salt, which is of a hot moist Nature, is that with which they make their Camp Cellars, by mixing it with Clay, to keep their Wine and other Liquors in ; this Salt being only the Sea Salt-water candied or coagulated by the Sun, will preserve the Body of the Clay a long time in a State of Humidity, and so prevent its hardening and cracking, whereby the Liquor contained under its Cover, will be in a fresh cold Condition in the hottest Seasons, as I have hinted in my first Part, for making Pots of Clay with it to stop Vessels. Again, besides the Infection that lies in the Backs or Coolers, Tubs or Tuns, it often extends itself, by tainting the Insides of the Leaden Pipes and Brass Cocks, thro' which the Wort is convey'd into the working Vat, or Tun, and there will lie and do Damage to the succeeding Worts, if not extirpated here also. To do which put some of the same Bay-Salt into the Mouth of the Leaden Pipe, and pour scalding Water on the same, and let it lie and soak some time, and you will find it effectually eradicate all Damage out of the same. Others will wet the Bottom and Sides of Tuns, and strew the Bay-Salt all about to it, and let it lie till next Brewing and soak.

C H A P. V.

Of Working or Fermenting Malt-Liquors.

IN my first Part, I think I have sufficiently detected the Male-Practice of beating or twacking the Yeast into Malt-Drinks : But as this vile Practice has got

too much footing at this time in the World, to be soon exploded, I have thought it necessary to resume this Subject, and to say, that all violent Fermentations are unnatural to Malt-Liquors; because by any furious workings, the sharp earthy Particles are irritated and brought into Agitation, which should by no Means be stirred up, by reason they spend and destroy the pure, fine, Sweet Spirits, and consequently cause the Beer or Ale to become Stale or Vapid the sooner. But many are so far from thinking this an Extream, that they promote it with all their Power, and force and beat the Yeast into the Body of the Drink for a considerable time together, with repeated Mixtures; which, as I have already observed, is generally done out of a wicked, avaricious End, to make six or seven Bushels of Malt go as far as eight or nine; and therefore 'tis a great Pity there is not a Penalty inflicted by Law on this Practice, as well as there is for using Molosses, in a Brew-house: For if the Truth was known, I believe the greatest Evil is on the Side of this destructive modish extraordinary Incorporation of the Yeast with the Beer, and all (in my Opinion) for the sake of thus rapaciously impregnating the Salt and Sulphur (two fiery Qualities) with the Liquor, that it may attack the Brain with its volatile Potency, and so impose a Credulity on the ignorant Man, that it is the pure Virtue and Strength of the Malt; and thereby it has induced many a poor Man, that works hard for his Shilling or Eighteen Pence a Day, to return the following one, for a Hair of the same Dog, to the Impoverishment of his necessitous Family, as I have seen it often done in the Country; and as my Discourse has had some Effect this way, I hope my Pen will have a great deal more, towards the Suppression of an Evil, utterly unknown to our prudent Forefathers; but thoroughly pernicious to many in our Time: For it's plain, that this ill-

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forceable Usage in Malt-Liquors, by beating the Yeast into them, clogs and detriments the fine penetrating Particles; so that in this Sort of Fermentation, the gross excrementitious Matter, cannot separate from the finer Parts, by which Means it will retain a strong, gross, fulsome Sweetness; which, instead of being avoided as a very great Enemy to the Health of Man, many of the Vulgar People admire, and count it good and nourishing; when, in Truth, such Liquor fails not to sur, foul, and obstruct the Stomach and Passages, sending back dark, dulling, Fumes and Vapours into the Head, and also generates an hard sabulous Matter in People subject to the Stone and Gravel; therefore let both Men and Women refrain such Malt-Liquors, if they have any Respect to their own and Childrens Health.

It is the Advice of an eminent Person in Knowledge and Practice this way, that the lightest Fermentation or Working of Ales or Beers, is the most conducive Way to Health; and that all heavy Fermentations are heterogeneous and unnatural to the Drink and Body of Man; For tho' the common Way is to run Drink, when it begins to fall or ferment more gently; yet then it will come under a fresh Fermentation in the Barrel, that oftentimes causes it to work again, as fierce as ever, which is apt to make it fret and spend itself; for long or fierce Working, makes all Drink grow sharp and stale, sooner than when the Fermentation is moderate and regular: It will, indeed, in such Case become fine somewhat sooner; because the volatile Spirits, or sweet Body, is wasted, or rather turned into Sharpness by too long and fierce working: Therefore those that have a Mind to avoid these Inconveniencies, ought to run or put up their Drink young, as the Brewers call it; that is, before it hath fermented too much, viz. so soon as the Drink works, it ought to be put into the Vessels, and you need not doubt but it will work sufficiently.

Nay

Nay this Gentleman carries his Opinion further, and says, when your Wort is thoroughly cold, mix your Yeast well with it, and put it presently into the Vessel, and it will do extraordinary well in warm Weather; and if in Cold, Allowance must be made accordingly, by putting the Yeast into it blood warm. But how contrary is this healthful Way to the Practice of many who load their Ales in particular, with Quantities of saline, sulphureous Yeast; and that their Drink may have enough of it, they sometimes make Additions of fresh Parcels in the Time of Fermentation. About the Beginning of *June 1733*, I happened to be in a common Brew-house, and saw a square Tun with Drink in it under a violent Fermentation, which induced me to ask the Man how long it had been there: He told me from *Friday to Tuesday*; and that latterly he had been obliged to beat the Yeast in it every two Hours to keep it down. At another's I saw several square Tuns that were about four and a half, or five Foot deep, that were so built, as to admit of loose Frames of Boards fastened on all Sides into them, to allow for the great Risings of their Heads of Yeast, before they beat or whisk'd them in, which would be elevated sometimes several Feet higher than the fixed Tun. Here was Adulteration with a Witness; here the fine Spirits of the Wort were entangled, imprison'd and choak'd, that should have been cherish'd, nourished, and digested, with all the Moderation and Freedom possible, and in their room the hot, salt, Brimstone Spirits of the Yeast substituted and made Predominant, to a horrid Degree of Degeneracy indeed. But according to the Proverb, *One Man's Mistake, is another's Game.* — Remarks: —

I cannot say this Person is intirely right in advising to Tun the Drink so young, as when it first begins to work (unless it be Small-Beer); but when the Ale or Beer has been work'd as cool as possible, to let it have

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have a Digestion first in the Tub or Tun; and when it is arriv'd to a fine curled white Head, then to put it up as soon as it can be done, is a good way; because if it does not thus ferment first in the Tun, the Coldness of the Cask and Cellar in Winter, would be apt to check and hinder it doing so in the Barrel. But as he was a Physician, he directs this early Barrelling up the Drink, to be the most healthiest way of all others, and very likely it may be so. But be sure never to fill up the Vessel again with what has worked out.

C H A P. VI

Of Recovering prick'd, stale, and damaged Butt and other Malt Drinks.

I Was told by a credible Person, who was concerned with a great Brewer in *Westminster* about forty Years ago, that he made a Tryal to recover some stale prick'd Butt-Beer, that was return'd by one of his Customers, and began after this Manner: First, he ran off a piece of strong Wort; then he put some fresh Malt on the Goods, and over that the damaged Beer; that he let stand some time on the Goods and Malt: But instead of bettering it, it came off a Small Beer to his great Surprize; for, as he told the Story, the Rich robb'd the Poor; because the Goods absorb'd the strongest Part of the Drink, and emitted only the smaller Part, as white Loaves in an Oven, when mix'd with the brown Sort, will take from them, but the Brown not from the white.

A second Case.

Another Person, who was a Victualler in the Country, and brewed his own Drink, I personally knew

knew that acted in such an Affair about four Years ago ; but after a different Manner. He first boiled his Water, and put it over four Bushels of Malt, by a Hand-bowl at a time, as usual ; and so soon as a small Quantity of the first Wort had run off just to take away the loose Flower of the Malt, he put over three Hand-bowls full of the damaged Beer cold, and when it was all discharged, he put over two Hand-bowls full of boiling Water, that also ran off without stopping the Cock at all ; and so on, a parcel of the Stale-Beer, and another of hot Water, till all the Strength of the Malt was thus washed out : And thus he served another four Bushels of Malt till all his damaged prick'd Stale-Beer was cur'd, and brought again into a mild pure State by Fermentation, as at other Times. And is an excellent approved way.

Remarks on the above-written Cases.

In these two Cases the small Brewer appears to be the greatest Artist ; because he improved his Drink, when the other was spoiled by Mismanagement ; for it is well known, that several spongy Bodies are, by their Make and Textures, a Propo for straining or refining Liquors ; and amongst others, a Body of Malt confined in a Tun or Tub, will answer one such End and Purpose, as is apparent by returning and putting over several Hand-bowls full of the first Running of the Malt, which is commonly thick, in order to receive it back again thin and clear ; so also will a Flannel Bag fastened about a Hoop, discharge foul Malt-Liquors as transparent almost as Sack, and which are used in all great Brew-houses, for straining the Dregs and Settlements left in the Backs or Coolers after the Worts are run off.

In the great Brewer's Operation I conceive he committed these Mistakes : First, by the Heat of the

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the Goods, and the Beers lying amongst them an Hour or more, the agitating Parts of the Yeast contained in them were stirred up, and brought into a small Fermentation that disordered the whole Body of the Malt: The Stale Quality also of the Beer, I suppose, in some Degree might constringe and lock up the Pores of the Malt with its gross and sharp Properties, which caused it to emit a thinner Body than it receiv'd: Whereas all such Drink put over the Goods, should be directly run off with an open, small, continual Stream; that the Beer might have less Power to stay, astringe, and ferment the Goods, and thereby better prevent the Retention that their hollow Grains naturally make of the gross Part of any Liquor.

Secondly, here was an Omission of pouring on scalding Water after the Stale Drink was run off, in order to wash away the glutinous, gross Parts that the Beer had left on the Goods, which was to have prepared it for the Reception of the next Lading over more Stale-Beer; that the small Brewer very judiciously did, and by his alternate Additions of cold Stale-Beer, and scalding Water, he each time kept his Goods in right Order, so as to prevent their being clogg'd with the heavy thick Parts of the Beer; and thus recovered his damaged Drink. But then in this Case I must remark, that the small Brewer had the Advantage of the great one, in his Brewing of only four or eight Bushels of Malt; for here he could put over the several Parcels of Stale Beer and Water at Pleasure, which the great one could not so well, by Reason of his large Copper, Mash-Tun, and limited Times of Brewing; for in this Affair, there is a great deal of Leisure required, to give time to the Stale-Beer and Water to run off in a small Stream, that the Liquors may have the more Time to bring away with them the Goodness and
Virtue

Virtue of the Goods ; otherways the damaged Beer cannot have a perfect Cure. And if there is a Quantity of such Drink to be cured, it may be done by repeating the Brewings till all is over. But here may an Objection arise, that such Drink may be thorough clear and fine ; and that there is no Yeast nor Foulness to cause a Fermentation and clog the Goods. To this I answer, that all Drinks that have passed a Fermentation and Digestion by Yeast, are tinctured and incorporated with it ; and tho' the Drink is aged, yet will the Effects of the Yeast remain in its Body in some Degree, and cause such a Fermentation ; as may be perceived by the thick Froth of Malt-Liquors, when only warmed over the Fire for present Drinking. But admit there was not the least Yeast in the Drink, yet such strong Malt-Liquor has a much grosser Body tho' ever so fine, than Water ; and which consequently will hinder it a free Percolation through the spongy close Grains, that like a Sieve will keep back the Sisy Part of the Beer, and transmit a thinner Liquor, as it happened in the great Brewer's Case.

A Third Way.

Take three Pounds of Hops that have been boiled in a first Wort only half an Hour ; and as soon as they are cold, put them into a Hogshead of prick'd or stale damaged Beer or Ale. Then take two Pounds of pure soft fat Chalk ; break it small, and put it likewise into the Cask ; and if the Drink is not too far gone, it will fetch it again into a smooth Mellow fine Condition.

A Fourth Way

Is done by mixing new Drink with the old ; but in this there is required a particular Management ;

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for if too much of the stale prick'd Drink is incorporated with the new, it will not answer your Expectation; therefore observe to order this in a due Proportion; let there be one Gallon of such Stale Beer mix'd with three Gallons of new at least, that the latter may have the greater Power; for it is by such superior Force, that the acid sharp Qualities of the Stale, are overcome and reduced into the smoother Nature of the new, and thus it will bring the whole Body of the Mixture under a new Fermentation, that will both clear, fine, and soften it: An instance of which I knew done in a Kilderkin that had about six Gallons of Stale hard Beer a little prick'd. To this was put ten Gallons of new that work'd it well, and at six Weeks end, when the Cask was tapp'd, the Drink proved very clear and good.

C H A P. VII.

The Receipt for Brewing Dorchester-Beer.

Boil the Water and let it stand, till you can see your Face in it; then put your Malt in by Degrees, and stir it; let it stand two Hours; then leak on your Complement; Boil the Wort and Hops thirty Minutes; cool it as soon as possible, stirring it that the Bottoms may be mingled; then set it in the Guile-Tun, till it gathers a Head, which must be skimmed off; then put in the Yeast, and work it till the Head fall; then Tun it, keeping the Cask filling up so long as it will work.

Remarks on the Particulars of this Receipt.

This Receipt came to my Hands from a Physician who has a Name for being curious in Malt-Liquors: However, I shall make my Remarks on its Particulars,

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lars, for the better Understanding of the Nature of the Ingredients, and the several Methods here prescribed for their Uses. And first, I am informed, that at *Dorchester* they lie on a Chalk, which may afford a good or bad Water. If it is soft, and it will easily lather, it then is excellent for this Use; but if it is hard, creeky, and curdling, it is as bad; for Experience has proved, that astringent or binding Waters are not agreeable, notwithstanding the common Use they are put to in Brewing Malt-Drinks; because their hard Qualities will still remain in the Beer or Ale, and affect the human Body accordingly: For tho' it has passed several Digestions in Brewing; yet will not the mineral Nature of such Water be totally destroyed, as is evident in the Taste of Beers and Ales tinged by them, that will still communicate the bad Properties of such Waters to the Palate and Body, after having lain many Months in the Barrel: They also naturally give a sharper Taste, and induce Staleness in Drink much sooner than the softer Sorts; and if there are any unhealthy Qualities in them, or in the Malt, Hops, or Yeast, they are the sooner and faster fixed in the Body, as their astringent binding Properties have more or less Power.

It says that the Water is boiled.—It's true, according to the old Way among the private Brewers, this Method is followed: but by the more intelligible Sort, it is not; but only so much heated as to be ready to boil, or at most just broke into Boiling; for the longer it boils, the weaker it is, and the more unfit for Brewing; because the Spirits of the Water would evaporate away in the Steam, which ought as much as possible to be prevented; and therefore in great Brew-houses at *London*, they are right in this Article of not boiling their first Water or Liquor to the Expence of its Spirits, which are truly worthy of Conservation as they tend to the Preser-

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vation of the Drink, and giving it an agreeable brisk Flavour to the last.

Letting it stand till you can see your Face in it, — Is what I must own is generally practised throughout the Country, as an Indication that the Water is in a true Temper to receive the Malt; but in this also I cannot commend the Country Method; for if the Water did not spend itself in the Copper by boiling, it will now in the Mash-Tub, and there be deprived of its Natural Spirits in Steam, that here have an Evaporation for a Quarter or more of an Hour: But to be more particular in this Point, I cannot but think this Invention was first contrived to supply the Ignorance of the Brewer, who indeed is by this Means under less Hazard of committing a Mistake, than if he was to do as the *London* Brewer does; who, instead of staying till the Water cools in the Copper, lets in a Parcel of cold Water directly; and thereby brings all his Liquor into a Temper at once, and so prevents the Mischiefe that boiling the Water would do. But this is a Piece of Skill that every one is not Master of; and to such the old way is preferable.

Then put your Malt in by degrees, and stir it. — This has been such a random Direction in Receipts of this Kind, that I never met with a Brewer in my Life, either great or small, that I ever heard dispute about this Matter, or even mistrust there was any thing in it beyond common Management: But I am sure there is considerable, as I have constantly found by Experience; tho' their Mouths are frequently full of disallowing what is generally called a Pudding-Consistence in the Malt; and that such a Misfortune is only brought to pass by one particular way, *viz.* by scalding the Malt, which I own may be done: But I can now assure them, it may be done another way, and that is, by mashing the Malt too long; and then the
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Brewing is never truly Natural where the Water is put over by the Hand-bowl, or what is called lading over; by reason the Malt then will lie in so heavy and close a Body, that the hot Water can't have so quick, free, and easy a Circulation about all the Sides and Parts of the Malt, as when it lies looser: And therefore, when the Malt is put into the Water, it should run but slowly, and be stirred as little as possible; I mean no more than needs must to keep it from balling; and then the Water will have free Access to all the light Body of the Malt. It's true, this most serviceable Nicety does not affect the great Brewer in his large Quantities of Malt, or where the Water ascends through a false Bottom, and the great Oars are used several Times in a Brewing; because they don't here lade over by degrees, but mash all at once. However, every one to their Convenience and Mind; the Lading over by degrees pleases me best.

Letting it stand two Hours. — This is soon said and writ; but there is more in the Matter than at first seems: The letting it stand two Hours, is a very good Way to give the Water Time to enter the Pores of the broken Malt, and extract its Virtue: In this Respect I approve the Country's Method beyond that of the Brewer, who generally lets it stand only one Hour; but I like his Way best, that caps the Malt or Goods: That is, so soon as the first Mash is done, he puts some fresh Malt spread over it to keep the Spirits in, and prevent their Escape in Steam, which is an excellent way to give the Drink the true Flavour of the Malt; that it will be sure to do, if it thus lies two or more Hours under Cover.

Leaking over. — Is what may be called putting over the Malt at times, many Hand-bowls of Water; that it may run gradually off, and wash away the Flower of the Malt by a slow degree, that the Vir-
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true of the Malt may be leisurely extracted ; which is more natural, and much better, than by hasty Proceedings ; but this I have said enough to elsewhere.

Boil the Wort and Hops thirty Minutes. —

This Article I would, if it was in my Power, reform in the first Part, but not in the latter. I am very sensible that the first Publication of the Hops true Nature, has done a great deal of Service in the World towards the Enjoyment of more wholesome Malt Liquors than heretofore this Nation usually enjoy'd ; and I would contribute the best of my Power, that the Wort may have also its Cure as well as the Hop : And therefore I advise, that the Wort, instead of being boiled half an Hour, may be boiled briskly till it's broke enough ; which may easily be done, if it boils but half an Hour before the Hops are put in, and then boil it longer with the Hops in ; or put in the Hops at the first boiling of the Wort in one or two Bags, and after half an Hour, take them out, and boil the Wort on by its self : Thus both the one and the other will have their due Cure : For in my Opinion, it ought to be established as a general Rule, that no fresh Hop ought to be boiled above thirty Minutes in Wort, nor the Wort boiled less than till it breaks into large Particles ; for if they are, I am sure the Liquor must suffer in some degree ; first, by the nasty, earthy, gross Parts of the Hop ; and secondly by the Wort's being raw, and not thoroughly digested.

Cool it as soon as possible. — This answers Nature's End in the best Manner ; for Wort can't be too cold to work, if it can be made to work at all : By this Temper it is, that the Wort is prevented fretting, and the fine Spirits of the Malt dissipated ; all violent Fermentations being an Enemy to Nature, and are often the Cause of sudden Staleness and Sour-

Sour-

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Sourness; for which Reason Brewers dare not take the same Liberty in Working of keeping Beers, as they do in the common Brown and Pale-Ales that are to be drunk directly; because it would be in Effect forcing of Nature beyond her genuine Motion, which is the best Dictator, and proves herself most improved, when she is most gradually managed and assisted; and therefore the Art is so to work all Malt-Liquors, that the Salt and Sulphur, with which they abound, be kept in a due Regularity.

Stirring it that the Bottoms may be mingled.— This is very particular indeed, and contrary to the Practice of all *London* and *Country*. Brewers that I ever knew: For in *London* the great Brewer takes great Care to leave the Dregs and Sediments behind in the long fixed Backs, and draw off their Worts from them as fine as possible, as thinking such gross Feces would prejudice the Drink, especially the keeping Sorts: Indeed it must be allow'd that foul Sediments as they subside the Thickness of one, two, or three Inches in a Butt, will become a Feed or Subsistence to the Beer for some time; but then let it be considered, that by putting all the Sediments into the Cask along with the Beer, the worst Part of all that is loaded with the gross earthy Salts and Sulphur of the Malt, Hops, and Yeast, are here reserved in the Beer to the last; whose harsh, earthy Qualities being very unwholesome, will not fail to communicate their rough Properties to the Drink, and on Change of Weather be very apt to disturb the Body of the Beer; and bring it under a Foulness and Staleness sooner than ordinary; for as the Feed is, such will be the Nature of the Malt-Liquor. The greatest Artists that have had a regular Learning in the Art of Brewing, allow that Drink, tho' it be ever so fine, put into the Guile-Tun out of the Coolers, will carry with it into the Cask such a share of Matter, as will become a sufficient Feces for

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for feeding the Beer some time, if there is Malt enough given it: But where that is doubted, and that the Drink may be further improved, any of the Compositions, or rather the Balls, mentioned in my first Part, may be used, which I have experienced to be excellent for this Purpose, and are of a much more preserving, fining, and wholesomer Nature, than the foul natural Sediments of the Drink.

Then set it in the Guile-Tun till it gathers a Head, which must be skim'd off. — It's very likely a Head Will arise in the Guile-Tun, where all the Feces are put in with the Wort; because the Salt and Sulphur of the foul Dregs, will give it a Sort of small Fermentation, and cause a Cream to appear in a Head, which he says is best skim'd off, and so do I; for it is a Sort of Excrement that the Wort discharges of itself; and the less there is of such left in the Drink, the better it is. But I never like to see Wort have a Cream on it before the Yeast is put in; for oftentimes this is a Presage of the Fox.

Then put in the Yeast, and work it till the Head fall. — This must be done without all doubt, and should be work'd as cool as possible; and when it has got to a good Head, to beat the Yeast in only once, and cleanse it into the Vessel, is the best Way of all others for keeping Beers. By this the Drink will have its Body fully opened with a due Fermentation, that is perfectly necessary to make it fine, and drink clean and light. I knew three petty Brewers of three Minds in this Respect. One said, draw off the Drink by a Cock placed six Inches above the Bottom of the Tun or Tub that the Sediments may be left behind. A second said, do that and skim off all the Yeast besides. A third said, put Beer, Yeast, and Sediments all into the Barrel. Now let us examine which of the three was most right. The first, had surely, a true Notion of the Matter; because it

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is these Faces that would afterwards cause a violent Fermentation in the Barrel, and bring on Acidity, and Staleness in keeping Drinks: And to hinder their incorporating with the Beer is the way to have fine Drink. The second that was for taking off Top and Bottom, declared himself more in the right than any of the three; for that there would be Yeast enough left in the Drink to cause a Fermentation in the Barrel, notwithstanding the Top and Bottom are taken off before. But the Third, I think, wholly in the wrong, that would have all put into the Cask; for then by Consequence there must be a violent Fermentation excited, while such Drink abounds with the Salt and Sulphur of its additional Yeast, and Dregs of its own Body; that are two Principles of such a sharp, fiery Nature, as are easily put in Motion, even by the very Influence of the Weather; and which is the Cause that such Beers are so frequently disturb'd on its Changes, and become stale, thick, and sour in a little time.

Then run it, keeping the Cask filling up so long, as it will work. — A very good Way, indeed, and what is consonant to the best Management in Brewing; and for that Purpose some of the Drink is kept out by way of Reserve for this Use, having a thick Head of Yeast on it within about two or three Inches of the Top; which will greatly contribute towards keeping in the Spirits of the Drink; for I think there cannot be too much Security taken for keeping in the Spirits of the Drink, which are constantly upon the Wing, and ready to fly away upon all Occasions; and then such Drinks will soon become vapid, stale, and sour. But there is a most contrary Way practis'd by some Publicans that I know; and that is, when the Drink has done working, and the Yeast duly settled, there will be a thick Part and a thin Part; now as to the thin Part, these Sort of avaricious People carefully run as clear off the Tub or Pan,

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that it is catched in as possible, and returns the same into the Cask, reserving only the thick Part out: This is another horrid, nasty, unwholesome Part of Brewing, that is worse than what I have complained of before, of beating or thwacking the Yeast into working Ale or Beer; for this is the very Tincture or Quintessence of that poisonous Excrement, and is so opposite to the sound Nature of Drink, and the Health of the human Body, that in the first it will immediately infect the whole Cask of Malt-Liquor with its fullsome Taste, and in the Drinker cause a Squeamishness or Sicknes in the Stomach and Head for some time after, and often violent Cholicks. But according to the Proverb, What the Eye never sees, the Heart never rues; for were the ill Effects of such Liquor truly known, I don't suppose the very necessitous Man would take it into his Belly, that could possibly satisfy Nature any other way; because in very Truth, Drink thus poisoned, as I may in some Measure call it, with the most corrupt refuse Part of the Beer and Yeast, is only fitting for the Hog-Tub, or which is much better, to be thrown down the Kennel; for there it will do least Harm. It once happened as I was drinking at a Publick Houle in a Village, among other Discourse, the Brewer very frankly own'd, he always took particular Care to let the Yeast settle after it had work'd out of the Barrel; and then poured off the clear or drinky Part into his Vessel. On this I told him some of the pernicious Consequences attending such Mixture. His Answer was, That truly he had paid Excise for it, and he could not afford to lose it. This was only one I accidentally found out; but I do not in the least doubt, but there are Thousands in the Nation besides, that are guilty of this adulterous Part of Brewing; and then it is no Wonder that Cholicks, Stones, Gouts, Vapours, and Consumptions, &c. are so rife as they now are: Nay, the dead Drop-pings,

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pings, or Leaking of the Tap, are put by several into a reserved Cask, to digest and recover itself with Time, and then become saleable Drink; but this I likewise detest for it's nasty, vapid, unhealthy Quality that it contracts in the open Tub, exposed sometime to the Air, and other incident Corruptions, which must necessarily retain a filthy Nature, tho' confin'd two or three Months in a Vessel afterwards. And therefore I am incited to take Notice of the Hardship, that such Publican Brewers lie under of being forced to pay Excise for such excrementitious Drink, and thereby tempted to prejudice the Health of the ignorant Drinker, for the sake of re-imbur-sing themselves of the Duty, and which, I think, should be a moving Consideration to an Officer to take care of oppressing the Subject with Over-charges in Gaging, that I remember too frequently happened to me, when I was concerned in the Publick Brewery. And as I thus write in Vindication of the Subject, I would nevertheless be understood, I am likewise a Votary for the very same Justice on *Cesar's* Side, whose Dues are equally his Right; and therefore I shall here insert the Copy of a Letter written by a common Brewer in *London*, which I found amongst his Papers after his Death,
viz.

Mr. ———
THIS is to inform you, that about eighteen Years ago, I set up the Trade of Brewing, and thought it not amiss to take all Advantages and Opportunities, to enrich myself by it, in respect of the Duty; but after I had gone on in this Error, God was pleased after two Years Gain this way, to lay a great Affliction upon me in respect of my Health; and being brought very near to the Grave in all outward Appearance, and being under the Apprehension of the awful Justice of the Almighty, I took in hand

44 The Receipt for Brewing Dorchester-Beer.

the Work of Examination more seriously ; and calling to Mind the Sins of my Child-hood and Youth, I proceeded to those of Riper Years, and of my present Circumstances ; and tho' before I thought it no Crime, to save what I could of the Duty, now Conscience tells me that it was a Sin, and a very great one ; because it's not rendering to *Cesar* the Things that are *Cesar's*, as our Saviour taught us to do ; and not doing to another, as I would he should do unto me. If I were the King or Governor, I would not be willing to be defrauded of what was given me, and becomes my Right by Law, (as this to the King or Queen of this Realm is) ; and our Saviour that said Render to *Cesar*, hath in this taught us to be just to our Governors, as well as our Equals, and pay Honour to whom Honour, Fear to whom Fear, Custom to whom Custom, and Tribute to whom Tribute is due. These things being now set in a clear Light, I was brought to a Hatred of this my beloved Sin of Gain, was made to resolve against it, and have kept from the Practice of it ever since ; tho' you may be assured, it was as pleasing to me, as to yourself, before I saw it to be a Sin ; but seeing I went on in it but two Years, I do account myself obliged to make Restitution to the Government for it to the utmost Farthing. I send this to admonish you to do the same ; and tho' you may think it a hard Task, yet it's no more than what I put myself under ; for there can be no true Repentance without Restitution, where we have Ability to do it, as you and I have : And tho' you may say it will amount to a great Sum, it therefore calls the more for the Payment of it ; and if it comes to all you are worth, yet it's best to restore these ill-gotten Goods ; for what can it profit you or me, if we gain the whole World, and lose our own Souls : And therefore my Advice to you is, seeing you cannot reasonably expect to live much longer, to cast up as near as you can, all you have defrauded

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The Receipt for Brewing Dorchester-Beer. 45

defrauded the Government of, all the time you brewed, both by whole Guiles, and Parts of Guiles, in making your Length short, and then making it longer with Small-Beer, and also by hiding and otherways, which you know best; but it would have been best, not to have known any thing of it in Practice. It's my Resolution, that when I can't follow a Trade or Calling without defrauding, I will lay it down. I think you have laid it down as to yourself, but that is nothing, unless you make Restitution for all your unlawful Gain; and warn your Sons that they do not the like, but immediately break off from these wicked Practices, which otherways will be both to you and them Gall and Bitterness at the last: And that it may not be too late, I send this to you, not to do you Hurt, but Good; not to make you Poor by restoring, but by restoring to make you Rich in Faith and Heirs of the Kingdom of Heaven; which I think cannot be, while you retain the Sin or the Effects gotten by the Sin, or uphold or encourage your Sons, in going on in the same Manner; for which God has promised to visit the Sins of the Fathers upon the Children to the Third or Fourth Generation, and especially such Children as go on in their Fathers Sins, as your's do in this Sin of Covetousness in the highest Degree; but if you will not own it to be a Sin, I tell you you must own it now, or you will be forced to own it when it will be too late to repent, or make Restitution for the Wrong you have done in it. I preach no other Doctrine to you, than what I take myself; and having done what I thought was my Duty, and what I was bound to do, I leave the Event to him that disposes of all Things. But wisthal I desire you to do what you can to restrain all others, you know have been, or are in this horrid Sin of Fraud and Injustice.

46 *A Receipt for Brewing Drink*

CH A P. VIII.

A Receipt for Brewing Drink after the Shropshire Method.

WITH regard to the Ingredients or Materials of Brewing good Beer and Ale, three Things ought principally to be taken care of, viz. Good Hops, good Malt, and good Water. As to Hops, provided they are well pick'd and dried, the *Kentish* Hop is esteem'd for Strength, to equal, if not exceed any of our *English* Growth, &c.

The Water to be made use of, if it can be had, is best that comes off a Marl or Chalky Bottom, or River Water after a Flood, reserved in Tubs with Taps two Inches from the Bottom to draw it off clear from the Sediments; but in some Places as there is a Necessity, so there are Ways and Means of meliorating the Water by throwing Chalk into, or ramming the Bottoms of Ponds and Wells with clayey Marl, &c.

That Malt is esteemed best, and I think deservedly too, which is made after the *Nottingham*, *Darby*, or *Dorchester* Way, which for Fineness of Colour, Strength and Taste, exceeds all other. Having obtained these three Ingredients in Perfection, the next Step towards having good Drink, is to take care of the manner of Brewing, which is various and different according to the Usage of different Places: But one Way has been universally approved of in Places famous for good Drink. The Way is this: Having boiled your Water very well with a little Bran thrown into the Copper, in mashing up, put about three Pecks or a Bushel of your ground Malt into a Tub; then pour upon it boiling hot Water; then stir it till all the Malt is wet; then lift it into your Mash-Tun, and so proceed till your whole Quantity of Malt is wetted;

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wetted; then let it stand three or four Hours; when you draw off, let it run from the Tap in a small Stream, sprinkling the Top of your Mash once in three or four Minutes with hot Water. By this Means you will not disturb the Sediment, and may make your Ale as strong or as small as you please. In boiling observe the breaking, &c.

From the Coolers to the working Fat, from thence to the Vessel, &c.

Remarks on the before-written Receipt:

This Gentleman, it's plain, intended out of an honest and generous Disposition to benefit the World, by letting them know his Way of Brewing as it is practised by himself, and several others; and I must own I have drunk Ale and Beer at his House free of any other Fault but two; and they were, the Liquor's not being fine in the Glass, nor clear of that nasty, bitterish, earthy Taste, that all Hops give Drink in which they are boiled too long. But to be more particular, I will examine his Receipt from the Beginning, where he says, that good Hops are necessary; and that the *Kentish* Hop is equal to, if not exceeds all others. This, I own, is my Opinion; but why a peculiar Commendation is due to the *Kentish* Hop, is to be accounted for: It is my Notion, that they have no more Advantage in their Soil, than those of *Hertfordshire*, and some other Countries; because, in both, as I remember, there are Sands, Chalks, Clays, and Loams. Their Situation almost alike hilly, or what may be called Chiltern Countries, a Title that distinguisheth them from the Vale Countries; so that I can't think *Kent* has any Preference on that Account: But I must be an Advocate for it on two others; and they are, first, That as *Kent* lies Southward from *London*, it certainly has a greater Influence of the Sun's Rays than *Hertfordshire*,

Devonshire, and some others that lie more Northwards, which undoubtedly is a great Benefit to the Growth and Spirit of the Hop, as ripening them sooner and better; than those that have not such a happy Aspect, and are thereby delivered more from the Power of the cold Dews and Frosts that happen in the Beginning of *September*, to others which are gathered about that Time, and is prejudicial to them and many other Vegetables in some Degree by the Chill it gives them, which is the Reason that some of the Curious gather their Golden Pippens before they are thorough ripe, as rather having them a little shrivelled, with a fine Spirit in them, than full mature, and damaged by the Cold; for the hotter the Weather is when they are ripe and gathered, the better it is for the Hop; and by the same Rule the *Southam* Cyder is stronger than any other in *England*; because the Fruit has a favourable Assistance from the Sun in this Southern Situation as well as the Root, that is obliged here to run shallow on the Marble Rocks, which induces the Fruit with a stronger Spirit than others are. Secondly, The Hop in this County of *Kent* may probably receive a stronger Spirit than others from the Effluvia of the warmer Air, that becomes more potent by the exhaled Vapours of the great Quantity of Salt Water, that I am apt to believe encircles near two Thirds of this County; and so I take it to be with what they call the Sea-Wormwood that grows on the Rocks about *Barnstable* in *Devonshire*; which is very Valuable for its Flavour and Strength beyond the common Sort that grows on some of our waste Grounds; and that by reason of its shallow Root, the Baskings of the Salt Waves, and the thin Warm Air or Vapour that arises from the Water, that is abundantly more subtle and finer than the gross Land Air; which undoubtedly impregnates this Vegetable with an excellent Spirit; as the *Kentish* Hop may also

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also receive for some of the same Reasons. Yet some say the *Worcestershire* Hop excels.

He comes next to the Water, and praises a Chalk or Marl Bottom, or River Water after a Flood. To this I answer, he is right as to the first two; but as to his taking Water out of a River, presently after a Flood, and putting it into Tubs to settle before it can be used, I can't be of his Opinion; because while such Water is making its Sediments in open Tubs, the Spirit of it dies in some degree, and you lose the best Quality of the Water, which all Brewers in a singular Manner ought to employ their greatest Care to preserve; and that such Water has a powerful Vital Virtue, is evidenced (as I have in another Place observed) from that of the *Thames*, that is said to stink two or three Times in an *East-India* Voyage, and at last upon opening the Bung, will send forth a fine Spirit of an inflammable Nature: And therefore where it can be had out of a River pure and clear, I think it far preferable to use it directly, than to obtain it by the Tap out of Tubs, unless meer Necessity is the sole Reason for the contrary.

Malt is the other Article; and which he very justly allows to be the best of all others, when it comes nearest to the *Nottingham*, *Darby* and *Dorchester* Sort, which are dried with Coak; and therefore are excellent for their Strength, pale Colour, and Flavour; because the Kernels by this Sort of Fire are free from the unwholesome and unpleasant Quality of the Smoak, which all other Fuel in some degree or other taints the Malt with; and not only hurts it in them two Evils, but also with their more irregular Heats that all Fires are subject to, except Cinder and Welsh Coal, whereby the Malt is better made in some Parts of its Body than others; now the truer it is dried, the more and finer Drink it will make; and then such Malt is further improved in its Strength and Colour, by the sulphureous pale Effluvia, arising

out of the Coak or Colm: But this Effect in the latter is apt to be too strong and unpleasant.

He also adds, that boiling Water is to be poured upon three Pecks or a Bushel of Malt, first in a Tub, and after it is stirr'd, to be all put into the Vat, and so proceed doing the like by another Bushel, till all is put into the Mash-Tun. This is the Reverse of what I have taught in several of my Methods of Brewing; and it is my Opinion, that those who so universally (as this Gentleman terms it) follow his Receipt, it is because they know no better Way: for if he knew the *Nottingham*, *Darby*, and *Dorchester* Rules of Brewing, as well as he does the Nature of their Malt, he would I believe alter his Mind and Fashion: for in those Places they are Strangers to such a Hodge-podge Way, as being their chief Endeavour to keep the Malt, Goods, and Grains as light as possible in the Mash-Vat, or Tun, that the Water may have free Access to, and into all the Parts of the broken Malt, the better to extract its Quintessence and Spirit; and that they may do it gradually, they take special Care not to let the Water be boiling hot, when the Malt first unites with it, lest its fiery Violence, scald, lock up, and stop the Pores of the Malt, make it clot and cake together, and the most flowery Parts of the Malt run whitish, glewy, and sily, like Paste; for when it so happens, their Hopes cease from obtaining good Drink that Brewing; because then the Malt will never mix kindly, nor give out its Strength to the Water. This is also proved in scalding of a Hog; where the Judgment of the Butcher is tried in taking his Water in such a Degree of Heat, as will cause the Hair to come off easily; but if he lets it Boil, it will rather set and fasten it on: Nay, the *Nottingham* Brewer is so tender in this Article, that after he has put a Bushel of dry Malt, over five that have been just mash'd to keep the Spirit, in; tho' it has lain
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thus two or three Hours, yet he dares not let his Water be boiling hot, that he first lades over, lest it scald and spoil that Bushel; but takes care that it want several Degrees of that Heat: And when it is thus wetted, he then boldly puts over his Jets or Bowlsfuls of boiling Water; for then all is out of the Power of this Sort of Damage. It's true this mixing of the Malt with boiling Water first in a Tub, will prevent its Balling, or gathering together in Heaps; so that the Water can come to all its Parts (which is the chief Reason, I suppose, that this Way was first invented); but then it must consequently bring all into what I call a Pudding-Consistence, that will cause the Malt to lie so close together, that the boiling Water afterwards can't have a free Circulation to all its Parts; nor can its Goodness then be got out so regularly and easily, as if it lay in a looser Mass; and therefore to supply this Misfortune of Balling, I put in the Malt very leisurely upon the Water in the Mash-Tub, and stir it, as I have already directed in the Chapter of Brewing Wheat-Malt, where the rest of his Receipt is fully answered.

A Receipt for Brewing a Drink according to a Method used in Philadelphia in Pensilvania.

Take five Pounds of Molasses, half a Pint of Yeast, and a Spoonful of powdered Race Ginger. Put these Ingredients into your Vessel, and pour on them two Gallons of scalding hot, soft, and clear Water; then shake them thoroughly well together, till it ferments, and add thirteen Gallons of the same Water cold, to fill up your Cask; let the Liquor ferment about twelve Hours, then bottle it off with a Raisin or two in each Bottle.

This was given me by a Person, who says that a pretty wholesome cheap Drink for quick spending, may be made after the Form of this Receipt: But as I never yet tried it, I leave the Proof to those that may think fit to make use of it.

Another from South-Carolina.

I lately had an Information from a Person who lived six Years at *South Carolina*, and belonged to one of his Majesty's Ships of War there, that they have no Malt-Liquor, but what comes from *London* or *Bristol* at 10d. per Bottle. As for their common Drink, a Table-Beer, he says its very good, but apt to purge those that are not accustomed to it upon their first drinking it; and if very new, as they are forced by Necessity sometimes to drink it so, it makes them very Sick: It is made in the following Manner. — They make use of no Malt or Hops, but take a sufficient Quantity of the young Pine Tops (which they have growing in great Plenty in the Woods there, and from which Trees is procur'd the Turpentine, they deal so largely in,) and boil them in Water for about an Hour, or till the outward Skin or Rind peels or slips off; then they strain the Liquor; to which they put a sufficient Quantity of Treacle, (the Quantities he could not inform me) or Molasses, which they boil for some time; then cool it a little, and put it up in their Vessels, which they call Punchins, and so work or ferment it, being Strangers to Yeast. They take some of their Potatoes (which are of three Sorts, the yellow or Brimstone as they call it, the Red, and Brown; there are some of them a Foot or more long, and are very sweet in Taste almost like to our Parsnip, (but the Natives prefer the *Irish* Potatoe to eat with their Meat.) These they cut into Pieces very small, and mash them; then put them into

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into their Drink, which works it very well, and their Sweetness gives the Liquor an agreeable Relish; for its apt to be a little too bitter from the Pine-Tops, which are very strong, but very wholesome; tho' when they can get Spruce (which is somewhat scarce, and grows among the Rocks) they prefer that Drink before that made with the Pine, both for Wholesomeness and Pleasantness. They preserve the Grounds for to accommodate Persons, as we do our Yeast, that are Brewing.

A Country Victualler's Way of Brewing.

He has two Mashing Tubs, one that will mash four Bushels, and the other two; and one Copper that holds half a Hogshead. The Water, when boiled, is put into the biggest Tub, and a Pail of cold Water immediately on that: Then he puts his Malt in by a Handbowl full at a Time, stirring it all the while, and so on in a greater Quantity by degrees: (for the Danger of Balling is mostly at first) till at last he leaves half a Bushel of dry Malt for a Top-Cover: Thus he lets it stand three Hours. In the mean while another Copper of Water is directly heated, and put as before into the other Mash-Tub, for mashing two Bushels of Malt, which stands that Time. Then after the Wort of the four Bushels is run off, he lets that also of the two Bushels spend away, and lades it over the Goods of the four Bushels, the Cock running all the while, and it will make in all a Copper and half of Wort, which is boiled at twice; that is, when the first Copper is boiled an Hour, or till it breaks into large Flakes; then he takes half out, and puts the remaining raw Wort to it, and boils it about half an Hour till it is broke. Now while the two Worts are running off, there is a Copper of Water almost scalding hot made ready, and is put over the Goods or Grains
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of both Tubs; where after an Hour's standing, the Cock is tum'd, and this second Wort boiled away, that he again puts over the Grains of both Tubs to stand an Hour; which when off, is put into the Copper and boiled again, and then serves hot as it is instead of the first Water for mashing four Bushels of fresh Malt; where after it has lain three Hours and is spent off, it is boiled; but while it is in the Mash-Tub, a Copper of Water is heated to put over the Goods or Grains that stands an Hour, and is then boiled for Small Beer. And thus he brewed in all ten Bushels of Malt as soon as he could, with two Pounds and a half of Hops for the Whole:

Another,

Whose Copper holds about twenty Gallons, makes half a Hoghead of Ale off four Bushels of Malt, thus: He just mashes the first Copper of Water, and lets it stand three Hours before he draws it off, which he reserves in a Tub with Hops; then having another Copper of boiling Water ready, he lades that over, a Hand-bowl full at a time, keeping the Cock continually running till all is off; then he boils this second Wort first with Hops till it breaks; when he takes half out, and puts the first Piece of raw Wort to the rest, and boils away again till it breaks; then makes a Kilderkin of Small-Beer without any Hops, which when cold, he puts one Pail of cold Water to it to keep it from souring, and the next Day it is heated, and serves for the first Liquor towards brewing four Bushels of fresh Malt next Day, and at last makes a Kilderkin of Small-Beer. By which Method he pays no extraordinary Excise. — While the Wort is boiling, this Brewer for some time lades it up and down with a Hand-bowl, believing this Motion contributes much towards making the Wort break the sooner.

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C H A P. IX.

*A Dissertation on several Parts of the
Brewery.*

ANOTHER, to brew four Bushels of Pale Malt, useth one Pound and a half of Hops thus: He rubs them well between his Hands, and then cools a little Wort, in which he wets them all; then puts them into a fine Net, and boils them only twenty Minutes, but his Wort longer till it breaks; by which he enjoys a fine palatable Liquor, fit to drink at a Month's End. — Remarks on the same — First, He is certainly right in using that Quantity of Hops to four Bushels of Malt, even for common Ale to be drunk in a little time; because as the Pale Sort is the most luscious of all others, there is required no less than so much. Secondly, And to have the purest spirituous Part of this Vegetable in a little While, he is no less judicious in rubbing them first; for by such Friction they are put into a Condition of imparting their Essence more freely to the Wort in a little Time. Thirdly, his Method of soaking them first in cool Wort is good; for if Hops are put directly into boiling Wort, as the common Way is, you may then expect the Pores of them to be locked up and scalded by the astringent Heat of the Liquor, and thereby hindered emitting so much of their Virtues as is necessary in that Space. Fourthly, his Management in boiling the Wort longer than the Hop, and till it breaks, is a most sure Way of giving a Cure to both; for you may depend on it, if Worts are under or over boiled, they are not rightly brewed. If under, then it will not work kindly in the Vat, nor fine truly in the Barrel, nor taste pleasant in the Glass. If too much, its viscous Parts will not thoroughly break by Fermentation; — For

For by too long boiling, the Body of the Wort gathers into a thicker Consistence than it ought to have and when very much boiled, it's apt to fox, or become ropy in the Cask, and thereby subject to the Breed of Worms while it lies in the same. Fifthly, This may then justly upbraid the old erroneous Way that some are guilty of, who boil all their Beers and Ales by the Hour Glass, or in plainer Terms, in the Dark; for 'tis impossible for the Art of Man to adjust such Boiling by that Rule, or any other, except the Eye; because one Sort of Malt won't break so soon as another, nor will one Sort of Water admit of it so soon as another, nor will — a slow Boiling so soon as a quicker; and the Reason for such a wrong Method of Brewing was occasioned two Ways: One by the general ill Custom of the Times; and the other by the Difficulty that attends such an Observation in the great Copper, where the Curb is put up, and the Top of it is four or five Foot higher than the Wort, that leaves only a narrow Vent for the Steam to ascend out by; and then such Wort that is under or over boiled, by Consequence can't be so wholesome as that boiled to its true Crisis, by Reason it is not of so easy and natural Digestion; but like the Extrems of under or excessive boiled Meats, will not fail to disagree with the Constitution of the Body in a degree; and if such Brewers happen right, (as undoubtedly they sometimes do) it's more by Chance, than Cunning: But then where is the Prudence of those who have the Convenience of Buying or Brewing right Drink, and yet lay out their Money all their Year in bad Malt-Liquors, without regard to their precious Health (the greatest Jewel in Life) and the considerable Profit that may be obtained in saving the Excise; and how a Family may brew their own Drink in a little Room, and with a few Tubs, I think I have amply shewn in my first Book of the London and

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and *Country-Brewer*, besides many other serviceable Curiosities that since have been proved by those I never saw or knew, and their Praise sounded at the Booksellers Shops, &c. for the same. And as I have both in that and this Book detected the horrid Practice of beating great Quantities of Yeast into Ales, to the great Damage of the human Body; and also exposed the common but considerable Loss that Thousands fall under by Clay Bungs, I shall here only enlarge a little farther on the last. It's true, that these Bungs are certainly a very great Convenience to some Brewers, by being ready to supply the Place of better with little Trouble and Cost: But if a Person will but consider the several ill Effects attending the same, I am of Opinion, he will no longer suffer such a prejudicial Companion to be close to his Drink. For these are the Words wrote in *Dr. Quincy's Dispensatory*, page 223 —

viz. " We must consider that Clay is a mineral
 " Gleebe, and that the gross Particles, and Metalli-
 " Salts with which Waters passing through such a
 " Bottom do abound, are, as *Dr. Lister* observed,
 " not to be mastered; that is, indigestible in the
 " human Body; not only therefore will these cause
 " as he well argues, calculous Concretions in the
 " Kidneys, Bladder, and Joints, and as *Hippocrates*
 " experienced hard Swellings in the Spleen; but
 " they must necessarily oftentimes, by their corrosive
 " Quality, twitch and irritate the sensible Mem-
 " branes of the Stomach and Bowels; and thus hin-
 " der and interrupt the Digestion of our Food. Nay,
 " besides all this, when they come into the Blood, it is
 " no wonder if the small Canals of insensible Per-
 " spiration, are frequently stop't up, and obstructed
 " by them; for it is upon this score, that *Sanctorius*
 " teaches us in his *Medicina Statica* Sect. 2. Aphor. 6.
 " that heavy Water converts the Matter of Tran-
 " spiration into an Ichor; which being retain'd, in-

"duces a Cachexy ; what Mischiefs will ensue here-
 "upon, every one sees, not only Pains in the Limbs,
 "Livid Spots in the Surface of the Body, Ulcers,
 " &c. from the Acrimony of the undischarged Moi-
 "sture ; but many besides of those perplexing Symp-
 "toms, which go by the Name of Hysterical and
 "Hypochondriacal, that may take their Rise from
 "the same Source." — By which it may plainly
 appear what pernicious Consequence the Nature of
 Clay is of ; but least there are not enough ill Pro-
 perties in the Water, that is taken out of such stagna-
 ting Wells, whose Bottoms are a Clay, and with
 which many Thousand Barrels of Drink are brewed,
 truly, there must be an additional Evil, by a Heap or
 Pat of Clay on the Bung-hole, which by the jolting
 of the Dray-Carriage, is often wash'd for some Miles
 together into the Vessel, where it afterwards subsides,
 and becomes a Share of the Feces that such Drink
 feeds on ; by which its Essence is conveyed into the
 Body by the Vehicle of such Beer or Ale. And
 as a farther Proof of the metallick, saline Parts
 contained in Clay, we may only observe the glazy
 Quantities that run or gather from it, by the Ve-
 hementcy of the Fire wherein Bricks are burnt, that
 are made with the same Earth. And therefore in
 time, the discerning Part of the World will explode
 so nasty, and unwholsome a Thing from being used
 about their Casks of Drink, not only for the above-
 mentioned Reasons, but also for several others, that I
 have mentioned in my first Part, and particularly for
 one I never yet took Notice of ; and that is, when
 such Pats of Clay are much mixed with the Yeast,
 that works sometimes several Days together through
 the Hole in its Centre, and remains on the Bung-hole
 a considerable while, there is apt to breed, as I
 have seen many times, several Worms from the Heat
 of the Weather, and the putrifying Natures of the
 Clay and Yeast : But what the Eye sees not, the

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Heart rues not ; for so it generally is when Servants have the Bunging and Unbunging of such Casks of Malt-Liquors, and thereby passes unobserved by the many Customers. In this Case the Country People are most sagacious, where many who live among Plenty of red Clay, refuse any Application of this Sort to their Casks : On the contrary, they constantly use the Bung I have writ the Dimensions of in my first Book, and follow the right Method I have there mentioned of managing the same. pag. 3. These Considerations lead me still further to make Observations on the three Principles of Water, Malt, and Hops. And first of *WATER*

In my Brew-house, there were used two Sorts ; one the New-River, the other a Well : The New-River I must own is the best Sort that *London* affords for brewing, which was kept in a Recevoir or great Cistern, containing about thirty or forty Barrels under Ground, over which was a Wooden Floor, where a Firkin-man filled his small Casks of Beer three-times a Week ; and as I remember, this Cistern was never cleaned in my Time ; for it was thought there was Business enough above Ground : But no Matter ; Who sees our vasey, muddy Sediments, that often encreased by the Foulnesses of new Supplies, and subsided at the Bottom ; where it from time to time tintured the succeeding Quantities of fresh Waters with its corrupt, unwholsome Qualities that keep Company with the Beer or Ale made with it to the last ; notwithstanding strictly speaking, all Brewing Utensils should be as neat as any used in Dairies, and accordingly are kept so by many, those that Brew their own Malt-Liquors especially. However it was thought good enough to Brew with, and relax the hard burnt Corns of the unwholesome Brown Malt. And for the Pale-Sort, we used the sharp, hard, stagnated Clay Well-water, that was thought most proper to extract the Quintessence out of this tenacious,

tough Grain. I have used the *Thames* Sort in Brewing to a considerable Advantage; I mean in making a greater Length of Drink from Malt by this Water, than any other would do in *London*; but how agreeable this was to the Health of the Drinker, if taken in the worst Part of that River, (for the best I own is a good Water) I leave to better Judgments. I shall only relate what a Person told me he tried on this Account; and that was when he was Journeyman to a Distiller, and his Master Abroad, he took the Opportunity of satisfying his Curiosity, by charging the Still with about 100 Gallons of *Thames* Water, and had for his Satisfaction only one off that he tasted, but soon spit it out in haste, as being of an unsufferable, nasty, brackish, muddy Relish. Another Case was that a Maltster living within a few Miles of *Dunstable*, was reported to have the best *October* Beer, by making use of his Horsepond Black-Water, and accordingly it was taken by the Country for an Orthodox Story; and for what I know, it may have led others into an Error of using the same unwholesome Sort, in hopes of having the like fancied Success. But was I to act only as an Hear-say Author, I should certainly be very culpable as well as they, and more so as the Propagator of such considerable Damage, instead of detecting Errors, and directing profitable Methods. But to do the World Service on this Account, I shall here declare how a Person may brew with foul Water, (the Clay, Allom, and some other Mineral Sorts excepted) and yet have sound Beers and Ales, viz. — When you are confined to use a troubled, muddy, greenish, or even an ill sented Water, as many are in the Country, who have no other Supplies than what Ponds or Ditches, Cisterns or Tubs, afford, that generally, in dry Summers, become stagnated, and often contain in them many small Worms and other Animalcula. I say, in such a Case, boil your Water;

Water; and while it is heating, throw half a large Handful of common Salt into a Copper of it, that holds a Barrel; and as the Liquor grows hotter, there will a Scum arise, which must often be carefully taken off, till no more appear: Then put such your boiling Water into the Tun or Vat; and when cooled by a Pan or two of cold, run your Malt on it by degrees, as directed, and you'll find that such foul Water will not only produce you a sound Wort, but also a white Yeast. For I am often forced by Necessity to brew with such Water, having only a Current out of the common Road that feeds my Ditch, and that Pond in my Garden. How happy also should the *Londoner* think himself for the Communication of this most serviceable Secret, on account of the *New-River*, *Thames*, and *Hampstead* Waters, that are very apt to run foul on great Rains, and Winds; but by this salubrious Antidote are obliged to throw off their otherways foul, nasty Fæces or Sediments, by a Scum that is hereby easily clear'd off before it passes the several Digestions of the Mash-Tun, Back, or fermenting Tuns; which when the Water was in such an ill State, neither I, nor the Workman that brewed for me, took any Measures to cure this grand Evil; for indeed to say the Truth, I then had no Notion of the ill Qualities of these sæculent Parts and Scums; tho' if we will but employ our Reason, there may be a true Conception easily made of both their unwholesome Natures. The first shew themselves to be the earthy, vasey Parts of the Water, by their ponderous Subsidence; for whenever there is sufficient Time and Opportunity allowed them, they will not fail to become a Body of Fæces at the Bottom of any Vessel that contains them. The second results from the first, as being the more light and frothy Part of those Fæces or Sediments, and are raised or separated from them, by the Agitation of the fiery Particles of the heated Water.

Water and Salt; and is of such Consequence to avoid, that every old Woman that can cook herself a Bit of Meat, will be sure not to be wanting in her Care of Salting the Water, and Despuming as fast as it appears, lest its pernicious Nature corrupt both her Meat and Soop, by being boiled into the same. And shall the Brewer be wholly regardless in this Matter, tho' he has a Thousand times more Reason; because he has more than a Thousand times the Quantity of thick, troubled Water to use and prepare for the most noblest Body in the World, even that which is humane. But so it is through a long Series of ill Custom and Ignorance, that this is become one of the least regarded Articles by many in the common Brewery. For in Truth, I never knew one of them in my Life that ever attempted to take off the Scum off the Water or Wort. On the contrary, when I have argued with a common Brewer, near me, of the horrid Nastiness of such Fæces or Scum. — Oh! says he, I matter not how foul my Water is, since I can bring my Wort off from my cooling Back, as fine as I please. — And really so it was, that by this Means my Customers were gulled out of any Scrutiny concerning the Water that they brew'd their Drink with; for if they could see the Liquor fine in the Mug, or Glass, all Questions about the Water and Scum were hardly so much as once thought on; tho' in Truth, nothing belonging to Malt-Liquor deserves it more, and therefore I shall here observe the Absurdity of this Brewer's Answer. — Does he not hereby as good as tell us, he cares not what the Nature of the Drink is, so it take the Eye and Heart of the Drinker, and excuse him from any Suspicion of Fault, tho' at the same time, in Fact, such a one is no less than his own Proficient at the Expence of my Health; for such as the nasty Nature of such Fæces and Scum is, so much is the Drink tinged with its Quintessence and unwholesome Qualities, by being boiled

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all together, and thereby so united, as that neither Fermentation, nor Age, can ever disunite or separate such its ill Properties, while the Drink indures; because it is the Nature of Ebullition to conjoin and astringe the Parts of all Ingredients that come under its igneous Potency. This may also serve as an Answer to all those who are so vain to say, they value not any Foulness of Water or Wort, for that Fermentation will clear it, and throw off all by the Yeast. A poor Shift indeed, tho' a very common one. But how much the Health of the Customer is concerned in such Management, I leave to the Judgment of the Reader. In the next Place I am to observe, that to the nasty Faces or Sediments of the Water, there are often added those of the Malt; for in my Brew-house, where we brew'd 5 times a Week, it is not to be supposed that we could give the Wort a due time to make its Sediments in the Backs, nor Leisure enough to run it off by the Cock in such a small Stream as was requisite to drain it fine into the working Tun; so that here both the Faces of the foul Water, and those of the Malt were joined together in some Measure, and in this Condition work'd and fermented all Night till the Morning, when we sold perhaps twenty Barrels by the Gallon; that is, by Pails and Tubs, at 2d. and 2d. half-penny per Gallon. The rest we sent out by the Dray; but how wretchedly unwholesome must that Oeconomy be, where such new Malt Beer was drunk the same Day it came from the Brew-house, or the Day after, as I have known many do, before it's well done working; they not considering that the human Body is a Sort of Alimbeck that distils or separates the pure from the impure, and then what must become of the grouthy, yeasty Fæculent Parts of such a Compound nasty Liquid. Is not this enough to lessen our Wonder, when we see many, of the Town born especially, look with white Faces and pale Lips, attacked with frequent Cho-

Cholicks, eaten up with the Scurvey, and emaciated by lingering Consumptions, that undoubtedly are often the Effects of bad Drinks; which by Consequence make large Lodgments of Corruption in the humane System, while they stuff and load it annually with innumerable Draughts of Dregs and Foulnesses contained in such thick unsettled Drinks. But I wish I could end here, and had no further Reason to employ my Pen in exposing this bad Husbandry, that extends itself too often to the Gentleman and Tradesman's Cellar, where the Barrel, Kilderkin, or Firkin, is taken in for Family Use: Here then by the Mismanagement of the Servant, or through Necessity of having none but one Cask to tap, the Vessel is set a running before it has had time to clear itself; and then there are little Hopes left of Drinking fine Beer out of that Cask. This was often the Case with several of my Customers, tho' it is certain no Malt-Liquor whatsoever can be good and wholesome if it is not truly clear and fine, and I think I may justly add, if it is not free from all nasty Faces that too often lie at the Bottom of Casks, in more than small Quantities, and tincture the Drink with their bad Qualities; but some there are who vainly fancy that Beer, (especially the aged Sort) ought to have something to feed on, otherways say they it will soon grow sour. To this I answer, that neither Beer nor Ale can be drawn off so fine from the Mash-Tun or Cooler, as to want a sufficient Sediment to feed it, as may be easily proved by an Observation when the Drink is drawn off, that never yet appeared to me without rather too much of this filthy Compound, which by its earthy and saline Parts naturally induces Hardness and Eagerness in the Liquor. And altho' Ale and Beer, loaded with such Dregs may become fine in time, yet is such Drink more liable to be disturb'd on Change of Weather, than that which is more free from such an ill Companion, and that by Reason the Particles of the Atmosphere

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sphere hovering about the Cask, will not fail on certain Seasons to join those in the Cask of their own Nature, and raise a Sort of Fermentation, to the great Disturbance of the Drink. And this Contact is more or less influenced, as the Cellar is of a dry or damp Nature. If it is a Chalk, Gravel or Sand, then it's best brewing in *October*, to give the Drink time to pass its Digestions in the Barrel before the Summer comes on: But if a Clay or any Water is apt to ouze, and stand in the Bottom of a Cellar, then *March* is to be preferr'd, that the Malt-Liquor may make its Sediments go through its Digestions in the Barrel, and get a fine Body before the Austerity of the Winter, renders such a damp watry Place too chilly by the frequent Interruptions of Frosts and Thaws. To this Purpose also some are so curious, and that in my humble Opinion with a great deal of Reason, to brew their pale strong Beers in *March*, on account of the lesser Share of Fire that such Malt has in it, than the brown Sorts, and therefore requires a whole Summer to meliorate and ripen it directly after its Brewing: But with the high dry'd Brown Sort, it is otherways, by reason of the great Quantities of Fire used in its drying or rather parching, whereby it is the more fitted to agree with any of its contrary Principles, as the damp, cold Seasons of a succeeding Winter, which relaxes and better reduces such Drink to a Melioration. It is this then that induces a sagacious Person to brew all his Brown strong Beers in *October*, that they may have their Cure before the Summer comes on. *N.B.* But observe, that you don't put too much Salt into the Water you brew with: if you do, it will certainly stale it very soon, and leave a Drought behind, instead of quenching Thirst; and when you use any, there should be more Hops put into the Wort to ballance the hard stale Quality of the Salt in the Drink, or rather my alcalous Balls which are excellent to keep off Acidity,

dity, and preserve it in a mild, sound Condition; or some of those Receipts may be made use of which I intend to publish in my next Book that will answer somewhat of the same Purpose.

C H A P. X.

An eminent Physicians's Way of Brewing Ale and Beer without Boiling.

THIS paradoxical Method has for some Years past gained but little Reputation in the World among the ignorant, opinionated, and self-interested Part; whose Tenets are so attach'd to Particulars, that a general Improvement can seldom get Footing till Time and Custom paves its Way by the Example of the truly wise and impartial, who suspend their decisive Judgments till they have brought a Matter in Question to the undeniable Test of a demonstrative Experiment, and scorn to condemn a Thing (that has any Shew of Reason on its Side) by mere Speculation; for as he has justly observ'd, those who are wedded to Tradition, and their own Humour, give little Hopes that Reason will sway their bigotted Perverseness. But to prove the Rationale of this new Method, he has made several Remarks as a Student in Physick on the Animal OEconomy, and says, that as our Bodies suffer a daily wasting by our innate Heat, Perspiration of the Spirits and Humours through the Pores of the Skin, and the Impressions of the ambient Air, there is required a daily Recruit of Nourishment. To this end the Variety of Foods and Liquids are to be considered as they are more or less healthful to our Bodies; and as the Stomach is the Agent that digests all Meats into a milky Substance called Chyle, which passing into the Guts, meets with two different Juices from the Gail and Sweet-bread, that being

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mix'd together, create an Ebullition or Fermentation, which further perfects the Chyle, and is sucked thence by the milky Vessels, and carried through several Receptacles till it mixes with the Blood, which returns its Nature and Nourishment to the Heart, whose Pulsation drives it into all Parts of the Body. And being thus intermix'd with the Blood, it is at length transmuted into it, like the former.

The Blood being thus made out of Chyle, is by the Arteries conveyed to all Parts of the Body for their Nourishment: But the most pure and spirituous Parts ascend up to the Brain (where out of it the Animal Spirits are made) being the Seat of Fancy, Reason, Judgment, and Memory; for from the Brain are all the Nerves or Sinews divided into all Parts of the Body, which cause its voluntary Motions, as Walking, Standing, Labour, &c.

First then if our Drinks or Meats be either improper in Quality, or too great in Quantity: in either Case it disturbs this curious OEconomy, Excess in both laying the Foundation of most Diseases: for every thing delighteth to produce its own Simile. Therefore all unwholsome Meats and Drinks are incapable of being converted into a pure and healthy Blood; but will in time acquire a Sharpness or some other evil Quality; which being carried to the Brain, clouds it with Vapours, interrupts its noble Faculties, and by often Repetitions makes a Magazine of corrupt Humours: By which it appears, what vast Importance good Meats and Drinks are of for securing Health of Body, and improving all our intellectual Faculties; because the Passions of the Mind follow its Temperament; for such as the Dyet is, such will be the Blood. To this Purpose this ingenious Gentleman declares, the first Step towards the Generation of the Stone, Gravel, Gout, Consumption, and many Diseases is the drinking strong, hot, sharp, intoxicating, stale Liquors, and fiery prepar'd
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Drinks; as Beer high boild with Hops, Brandy, Rum, old Wines, which for the most part tend towards a hot sharp Spirit, and breed a hard gritty Substance in the Passages and Ureters, and burn up the radical Moisture. Which to prevent in the succeeding Generation, it is now practised by several of the great ones, to confine their Children to select Dyets, consisting chiefly of Puddings, Soops &c. but little of any Flesh; and to that Degree, that I have known a Boy and Girl petition the Servants for a Morfel of a Fowl. This is done in order to prevent a Lodgment in their Bodies of those pernicious Scorburick Salts, that all Flesh abounds with: And so in their Drinks they are not less curious.

Secondly, The boyling Hops two, three, or four Hours in Beer, is a Thing of pernicious Consequence; because this Usage destroys the mild, opening Qualities of the Drink, and in their room institutes and impregnates the Wort with a harsh bitter astringent Nature; and when Hops and Beer are so boiled, they prove very injurious to several Constitutions; especially those inclinable to the Stone, or Gravel, by their extraordinary restraining Operation.

Thirdly, That the boiling of Wort, or any spirituous Liquor that is extracted from things whose Body is opened by Fermentation, as Malt is in a very high Degree; does not only destroy and evaporate the fine, thin, subtle Spirits, which are only capable of Penetration; but it does as it were fix or stagnate the whole; by which it becomes of a grosser, fuller, or stronger Taste in the Mouth, which through Custom and Ignorance is esteem'd a Virtue, but the contrary is understood; for thereby it becomes of a heavier Operation, lies longer in the Stomach, and sends gross Fumes to the Head, which is obvious by tasting unboyled Wort, and that boiled with or without Hops, and you'll find that this last has not only

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lost its pleasant sweet Taste, but its opening, penetrating Virtues by which it becomes of another Nature and Operation, which Fermentation does in some Degree help, but it cannot regain those fine, thin, soft Virtues that it lost in boiling, the fierce heat of the Fire being an utter Enemy to all spirituous Drinks, Liquors, and Cordials. It is also to be observed, that unboild Ales and Beers do generally drink smaller in the Mouth, than that which is boiled; because its spirituous, sweet, Balsamick Qualities, are not so much destroyed, suffocated, or stagnated by the igneous Particles of the Fire as the other; but it most naturally warms the Stomach, and is not so subject to send Fumes to the Head, runs thro' the Body quicker, purges more powerfully by Urine, which are naturally Testimonies of its Virtues, and that the better Parts are preserved in the Preparation. It's also to be observed, that all Drinks made without Fire, altho with raw, crude Fruits, Apples, Grapes, and the like, as Wine, Cyder, and many other Sorts, are not only more spirituous and brisker in Operation, but also more cleansing and penetrating if Order and Temperance be observed. But note, that all fermented Drinks are much better and greater Preservers of Health when new, than Old or Stale; for Age turns their mild Virtues into hard, inflammable, and keen Properties; for this Cause, all Stale Beer, old Wine, and Cyder, are far hotter in Operation than new, and consequently more prejudicial to Health, especially in the Gout, Gravel, Stone, and Consumption; therefore those who would drink Beer and Ale more wholesome and Homogeneous, may observe the following Rules, *viz.*

First make your Water or Liquor near boiling hot, then put so much into your Mash-Tub, as will wet your Malt; stir it, and let it stand half an Hour; then add your whole Quantity of hot Water that you purpose to put up for the first Time, and let it stand

stand an Hour and an half; but if you would have your first Wort very strong, then two Hours if the Season be not hot; then put what Quantity of Hops you think fit, into your Receiver, and let your Wort run on them; and after your Hops have infused an Hour and an half in your Wort, then strain it off into your Coolers, and you have done with the first Wort. Then put upon your Malt your second Liquor near the same Heat as the first, and let it stand only one Hour at most; then take what Quantity you please of fresh Hops, and put into your Receiver as before, and let your second Wort run on them; then take both second Wort and Hops together, and put up into your Copper; there let them infuse till your Wort is near boiling, but not boil; then strain this also into your Coolers, which you have done with also. Now if you will make Small-Beer, put what Quantity of Cold Water you think fit on the Grains, and let it stand half an Hour; then run it off to some fresh Hops, and put both this third Wort and Hops into the Copper as you did the second, and let the Hops infuse till they are near boiling; then strain it into your Coolers, and you have done. But remember that your Water never is to boil; for Boiling irritates and evaporates the subtle, fine, penetrating Gas or Spirit; and then the Water becomes more harsh, hard, fixed, and dead, which renders it not so capable to draw forth or extract the sweet Virtues of the Malt; to prove this boil a Quantity of River Water, put it into another Vessel, and let it stand a while; then take a like Quantity of cold, and put into another Vessel, and let that stand the same time as the other, and you'll find the boiled Water to stink, and never be sweet again; but your Water, which remains intire not touched with the Fire, will also putrify, or rather ferment; but then it will recover and become sweet and good for any Use as before.

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Brewing Ale and Beer without Boyling. 71

Again, Tho' I have mentioned the making of Small-Beer after the Ale, I would here be understood, that all such Beer is injurious to Health, and the common Drinking thereof, does generate various Diseases, especially the Scurvey; because in the Grains is left nothing but a terrene gross Phlegm of a tart sour Nature, which incorporates with the Water; and to make it much worse, it is generally boiled with the Dregs of the Hops, which have been boiled several Hours before in the first and second Worts, that still encreases the Mischief: However, of this I have amply wrote in my first Book.

The Quantity of Hops for Beer, if you propose to keep it half a Year, or a Year, ought to be six or seven Pounds to a Quarter of Malt; but for Beer or Ale that is to be spent presently, two, three, or four, to eight Bushels will suffice. Tun your Drink young, that is, as soon as it works, put it into your Cask, and it will be much wholesomer than if it ferments too high before. And as to Boiling of Worts after they are drawn from the Malt, I do aver, (says this Gentleman) that it is not only unnecessary, but mischievous for the foregoing Reasons; 'tis not Boiling, but a due Fermentation that makes excellent generous Liquors. Malt passes through three Digestions: First, by the Sun and Elements. 2dly, by its being made Malt; and, 3dly, by its Infusion in Water, and needs not a fourth by boiling; for tho' I say it is to be heated, it is not to correct its Rawness so much, as to fit it the better to extract the Virtue out of Malt; which being once effected, all our Pains in boiling is superfluous; because this Drink has passed through all the Digestions and Fermentations necessary to its Conservation, and will keep accordingly; for I have made excellent Beer this way, that has kept twelve Months, tho' six Months is long enough: But if any are dubious of the Veracity and Benefit of what

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72 *Sir T—S—'s Method of Brewing*

is here advanced; for their farther Satisfaction and Conviction, I refer 'em to Experience as the best Master.

C H A P. XI.

*Sir T—S—'s Method of Brewing
a Pipe of Pale Strong Beer.*

TAKE three Quarters of the finest white Pale Malt, let it be ground not too fine, but just that all the Corns may be broke; let your Water be soft, running Rain, or Pond Water; boil it half a Quarter of an Hour, then lade it off into your Mashing-Tub; let it stand till you can just bear your Finger in it: Then put in your Malt by little at a time, keeping it stirring all the while: It will take half an Hour's Mashing in this Manner: When done, cover it up close, for two Hours and a half, or three Hours, returning it back into the Mash-Tub, till fine. At first letting off, put in 14 Pounds of the finest Pale Hops, rubb'd in with your Hands, that they may not lie in Lumps, boil it to 20, not exceeding 30 Minutes, with as much Fierceness as possible, to be kept in the Copper; immediately after throw the Liquor off into the Cooler, straining the Hops clean out; let it be almost cold, not Blood-warm, before you let it down into your Working-Vat. One full Quart of good Yeast is enough for this Quantity; you may let it work one or two Days; then Tun it, keeping the bottom Sediment out; let it be fill'd up every Day for a Week; after bung it in three Weeks or a Month; it is sometimes near 12 Months before it is fine for Bot- tling.

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The above Receipt was communicated to me by an honourable and generous Gentleman ; on which I shall only make this short Remark, that in my humble Opinion his Boyling the Wort but half an Hour with the Hop, is not agreeable, because it can't have its due Cure in so little a time, tho' the Hop has ; but as I have already writ, and intend hereafter to publish more on this Subject, I refer you to the same.

The Fraudulent Practice by short-Measured Casks exposed.

CASKS. — These are unavoidable Necessaries, and must be had at any Rate : Their Sizes in *London* are generally the Pin, Firkin, Kilderkin, Barrel, Hoghead, and Butt ; of which Number there are three that differ from the rest in Measure on a particular Account ; and they are the Ale Firkin of eight Gallons, the Ale Kilderkin of sixteen, and the Ale Barrel of thirty-two Gallons : The Small-Beer Firkin being nine Gallons, the Small-Beer Kilderkin eighteen Gallons, and the Small-Beer Barrel thirty-six Gallons : Now as there is a considerable Difference in the Measure of these three Casks, I think it but doing Mankind common Justice to take Notice of a horrid Fraud that was never yet exposed in Print, committed by some ill Persons concerned in the Small-Beer Brewery for many Years past, and that by carrying these Ale Casks full of Small and Ten Shilling Drink, instead of the Beer Casks, whereby many honest Customers have been imposed on to a considerable Damage. A particular Case or two I shall here mention as it in some Degree related to myself. My Father happened to serve a Clock-maker in *Fleet-street* for some Years with Table-Beer in Kilderkins, and other Casks, till at last he was supplanted by a Firkin-man, who by a villanous Invention imposed on them both in this manner, *viz.* He comes

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into the Shop under pretence of buying a Clock; and after he had agreed to the Price, he tells the Owner that he was a Brewer, and would furnish him with Drink till all was paid. To this the Clock-maker agrees, and the Debt was discharged in these short measured Casks, that generally wanted considerable of being full. Now this Impostor did not confine himself to this Way of cheating only, but was detected in several other sly, and notorious Facts. Once a Gentleman that was another Customer came to a certain Brew-house, where he took up his Drink, to enquire for him; but he being absent, told his Case to the Master Brewer, a worthy Person, that there was a Cask brought into his Cellar by two Men seemingly as a full one, but was truly an empty one or near empty, and at the same time carried another away from off the Stilling that had some Gallons in it. At another time this Monster in Iniquity, sold his Firkin-Trade to a Person for valuable Considerations, and presently afterwards went about and perswaded several of the Customers to take Beer of him again, to the great Prejudice of the honest Purchasers. And now as I have engaged my Pen so far, I will proceed to calculate what a Family, that drinks a Kilderkin of Ten Shilling Beer a Week, may suffer by such a Fraud, that wrongs the Customer of two Gallons in the Measure of the Cask, and sometimes another by the Vessel's wanting of full, which is three Gallons in all; and amounts to Ten-pence per Week, or 2 l. 3 s. 4 d. per Annum; a Matter I think of Consequence, and calls for a strict Observation. But here I would be understood that I do not extend my Reflection on the honest Brewer or Firkin-man; for I have known a Firkin-man that would always not only send out lawful Casks, but full Measure, and scorn'd to be guilty of the least wrong this way: So likewise the Strong-Beer Brewers, who I believe are most of them Men of

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strict Justice and Probity; an Instance of one of them I shall here mention as it occur'd to my Knowledge from the Relation given me by the Brewer concerned in the Affair. — An eminent wholesale Victualler that sold Stout and other Stale Beer by the Butt and Hogshead to those new set up, who are often obliged to furnish themselves this way, till they can get a Stock of their own at a sufficient Age; agreed with this Brewer for a Number of Barrels of Keeping Beer, on Condition he would let him have so many new Hogsheads as would contain all the Drink. Now in this Proviso, the Victualler had a sinister end, that the Brewer at first perceiv'd not; for being acquainted with the Cooper that was to furnish them, he persuaded him to make them under Measure, that he might get a Profit by selling to the Customer a short Hogshead, instead of a full measured one; and tho' he thus sold by the false Cask, he bought by the true gaged starting Barrel: which happened afterwards to be discovered by the Brewer, who was so honest a Man, that he gave a large Sum out of his own Pocket to be distributed among those that had thus suffered, that they might have ample Restitution made for the Fraud committed by Means of his Cask, tho' unknown to him: I have been the more particular in the Relation of these Pieces of Knavery that they may be a Warning and Prevention to the Gent Tradesman and others how they deal with Men of bad Reputation, which this Firkinman generally had; who, tho' he carried on his Frauds to a great Degree for a long time, lately died very miserably Poor and distracted.

But I can't yet discharge my Pen from this Sort of Imposition, by Reason that two considerable Small-Beer Brewers were also guilty of sending out these Ale Kilderkins, and Firkins to their Customers, one whereof declared that he had done it, but left it off some Time ago, when he thought

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he had got enough (I suppose) to trust Providence by honest Measure. As to the other I don't know whether he ever did. A horrid Thing indeed for Persons sometimes to suffer not only by Drinks made with unwholesome Waters, Malt, Hops, and Yeast; but to compleat the Scene of Villany, must have short Measure into the Bargain, to a considerable annual Loss where there are two, three, or four Kilderkins consumed in a Week, as in some Families there are: Bad indeed it is with the Customer who is damaged by such a Wrong; but worse it will be to him that commits it, who must die without true Repentance, if a Restitution is not made, and he of an Ability to do it; and how that can well be done to those that may be deceased in the Time, and others that he may never come at, I know not. However, with many who have a Convenience of Brewing their own Drinks, the Risque of dealing with such Men may be avoided, and you may please your selves several Ways by so doing. Yet where the necessary Room and Utensils are wanting, the honest common Brewer, who uses a right Method, may supply such best, and who I must own is commonly provided with the best of Coolers, Backs, Tuns, Room, &c. for this Purpose.

But lest I prejudice myself by enhancing the Price of this Work, in swelling it beyond its intended Extent, I must refer my Reader to the Third and last Part of the **LONDON and COUNTRY BREWER**, that I have now ready in Manuscript, and intend to publish in a short time. Wherein I shall give a farther Detail of several most useful and necessary Particulars relating to Malt, Waters, Worts, &c. with a new Plan of Brewing Malt-Liquors, besides many other profitable Matters not proper here to mention.

F I N I S.

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 A rectangular stamp with a double-line border. Inside, the words "MVSEVM", "BRITAN", and "NICVM" are stacked vertically in a serif font.

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NICVM